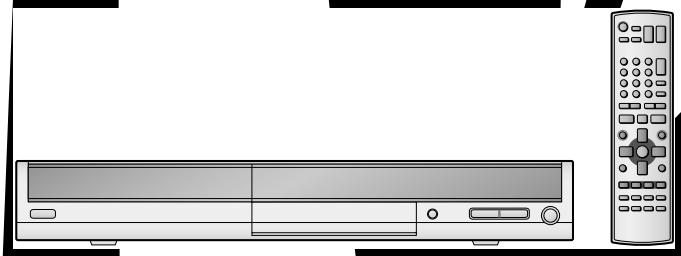
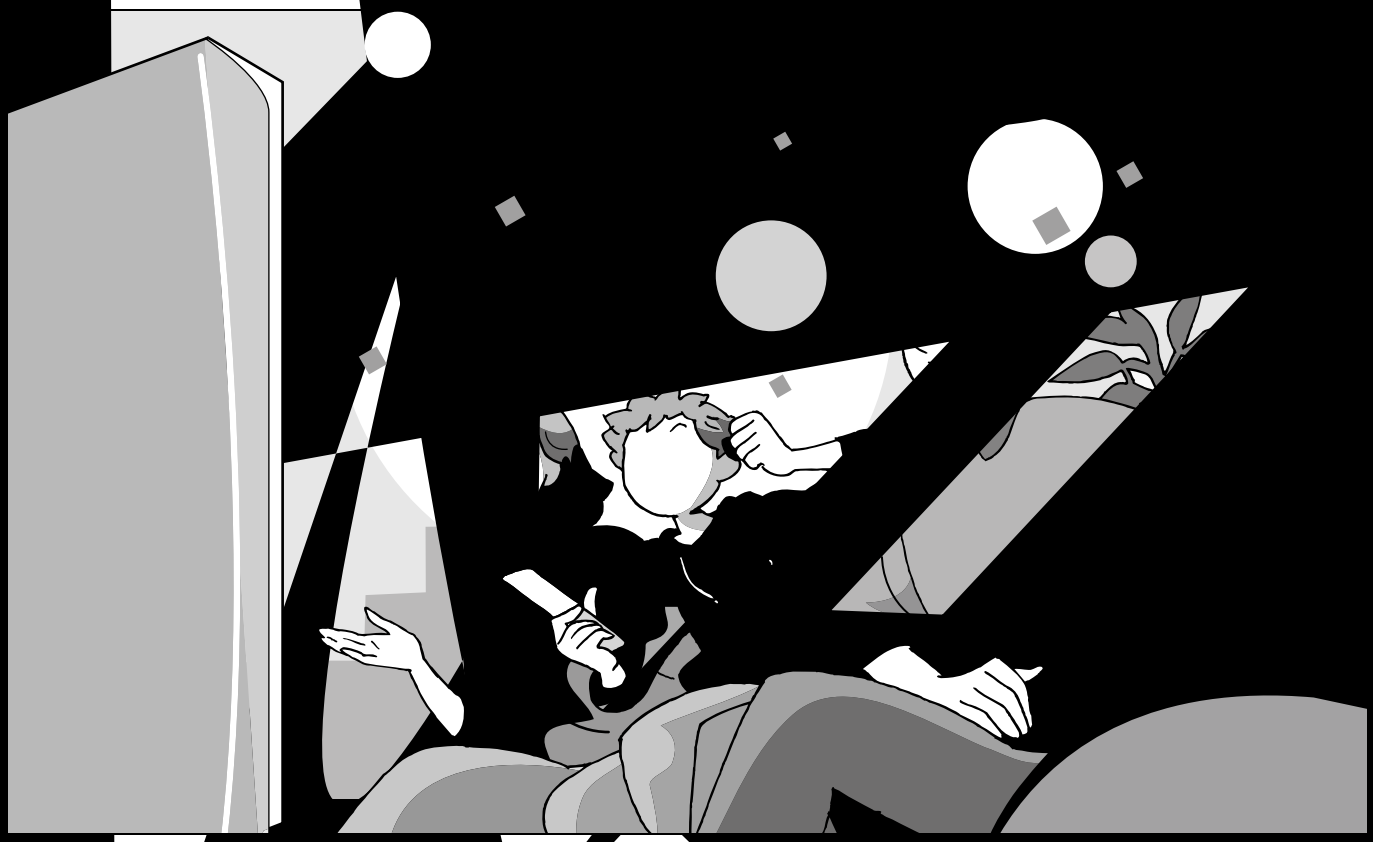
Panasonic





DVD VIDEO RAM | DVD RW/R | DVD AUDIO | COMPACT disc DIGITAL VIDEO | RAM COMPATIBLE RECORDER | VCR Plus+®

am performa
rully.

his product, please re

erence.

egion ported by this unit

egion nu ted to DVD players and software
cording are sold.

- The re n of this unit is "**1**".
- Th y DVDs marked with labels containing "**1**" or

Example:

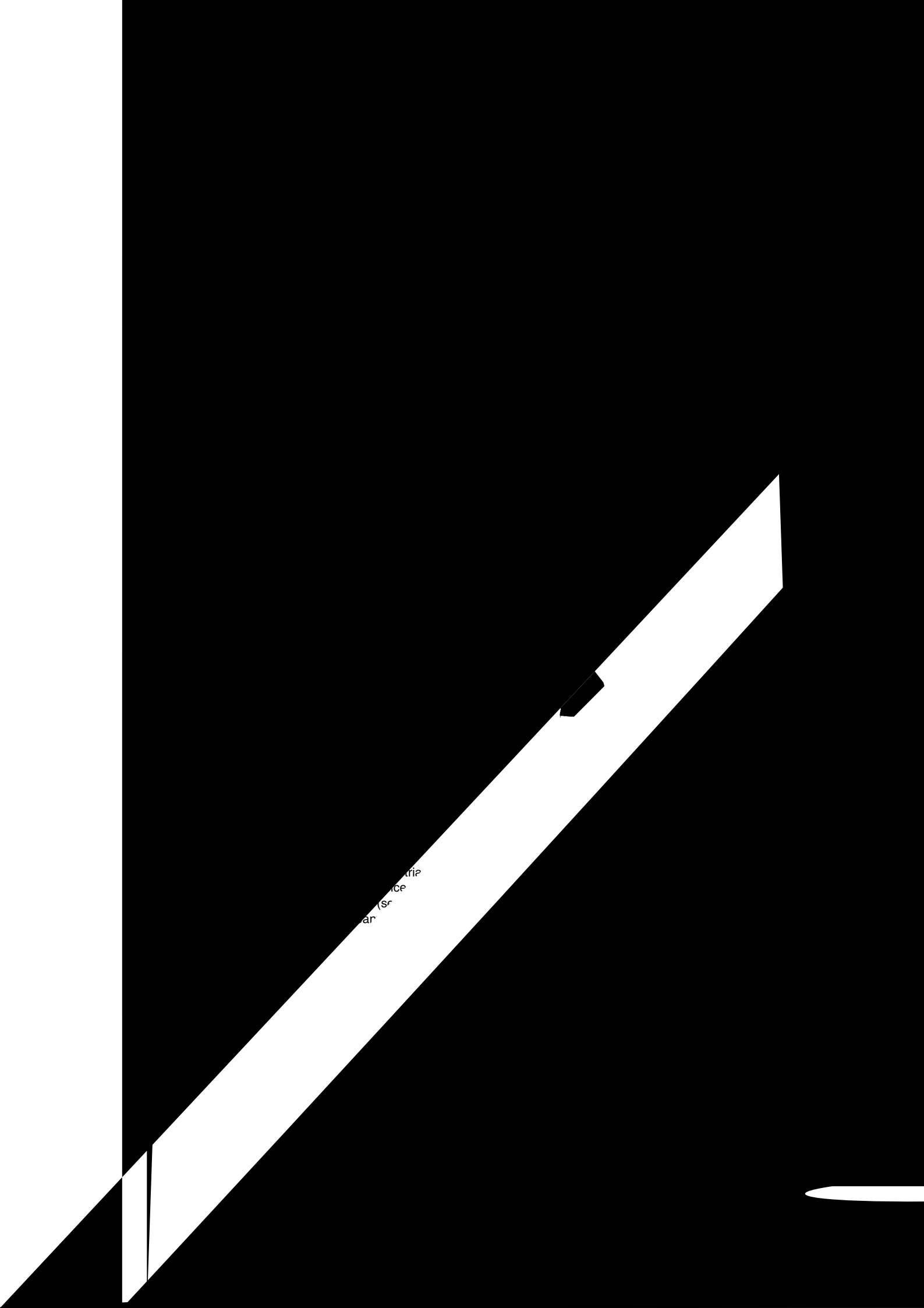
If you have any questions contact
In the U.S.A.: 1-800-211-PANA(7262)
In Canada: 1-800-561-5505

For U.S.A. only
The warranty can be found on page 42.

For Canada only
The warranty can be found on page 43.

La referencia rápida en español se puede encontrar en la página 44–47.

RQT8009-5P



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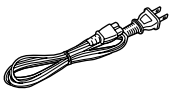
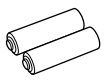
Accessories

Please check and identify the supplied accessories. Use numbers indicated in parentheses when asking for replacement parts. (Product numbers correct as of December 2004. These may be subject to change.)
Only for U.S.A.: To order accessories, refer to "Accessory Purchases" on page 42.
Only for Canada: To order accessories, call the dealer from whom you have made your purchase.

☐
1 Remote control
(N2QAKB000055)

☐ 
1 AC power supply cord
(K2CB2CB00006)
- For use with this unit only. Do not use it with other equipment. Also do not use the cords for other equipment with this unit.

☐
1 75 Ω coaxial cable
(K2KZ2BA00001)

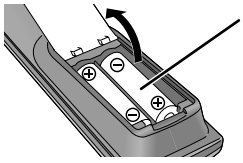
☐ 
2 Batteries
for remote control

☐
1 Audio/video cable
(K2KA6CA00001)

(U.S.A. only)
Product Registration Card
Please complete and return the included product registration card, or register via the Internet at: http://www.prodreg.com/panasonic/

The remote control

■ Batteries



- Insert so the poles (+ and –) match those in the remote control.
- Do not use rechargeable type batteries.
- Do not mix old and new batteries.
- Do not use different types at the same time.
- Do not heat or expose to flame.
- Do not take apart or short circuit.
- Do not attempt to recharge alkaline or manganese batteries.
- Do not use batteries if the covering has been peeled off.

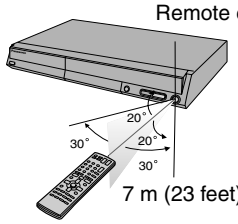
Mishandling of batteries can cause electrolyte leakage which can damage items the fluid contacts and may cause a fire.

Remove if the remote control is not going to be used for a long period of time. Store in a cool, dark place.

Note

If you cannot operate the unit or television using the remote control after changing the batteries, please re-enter the codes (➔ page 14).

■ Use



7 m (23 feet) directly in front of the unit

Discs you can use for recording and play (12 cm/8 cm)

Disc type	DVD-RAM ● 4.7 GB/9.4 GB, 12 cm (5″) ● 2.8 GB, 8 cm (3″)	DVD-R (DVD-Video format) ● 4.7 GB, 12 cm (5″) ● 1.4 GB, 8 cm (3″)
Logo	DVD RAM RAM4.7	DVD R R4.7
Indication in these instructions	RAM	Before finalizing: -R After finalizing: DVD-V
Main use	Re-writable discs	One time recording discs (recordable until the disc is full)
Maximum recording time (→ page 15, Recording modes and approximate recording times)	8 hours (16 hours in EP (8H) mode on double-sided disc*1)	8 hours
Play on other players	Only on DVD-RAM compatible players. It is not necessary to finalize the disc. (→ page 31)	Only after finalizing the disc. (→ page 31)
What you can do on this unit (✓: Can do ×: Cannot do)		
Chasing playback	✓	×
Recording broadcasts that allow one copy	✓ (CPRM (→ page 36) compatible discs only.)	×
Recording both Main and SAP of MTS broadcast	✓	× Only one is recorded (→ page 33, Select MTS)
Recording 16:9 aspect picture	✓	× (The picture is recorded in 4: 3 aspect.)
Enter program (title) name	✓	✓
Erase program (title)	✓ (Available space increases after erasing.)	✓ (Available space does not increase after erasing.)
Creating playlists	✓	×

- We recommend using Panasonic discs. We recommend using DVD-RAM discs with cartridges to protect them from scratches and dirt.
- You may not be able to record to DVD-R, DVD-RW and +R discs on this unit or play them due to the condition of the recording.
- You cannot record programs that allow “One time only recording” to CPRM compatible DVD-R and DVD-RW on this unit.
- You can use high speed recording compatible discs on this unit.

*1 You cannot record or play continuously on two sides.

Play-only discs (12 cm/8 cm)

Disc type	DVD-Video	DVD-Audio	DVD-RW (DVD Video Recording format)	+RW
Logo	DVD VIDEO DVD VIDEO	DVD AUDIO	DVD RW	—
Indication in these instructions	DVD-V	DVD-A	-RW(VR)	DVD-V
Instructions	High quality movie and music discs	High fidelity music discs ● Played on this unit in 2 channels.	DVD-RW recorded on another DVD Recorder*3 ● You can play programs that allow “One time only recording” if they have been recorded to a CPRM compatible disc. ● By formatting (→ page 30) the disc, you can record to it in DVD-Video format and play it on this unit. ● It may be necessary to finalize the disc on the equipment used for recording.	+RW recorded on another DVD Recorder*3

*3 Play may be impossible on some CD-R, CD-RW, DVD-RW or +RW discs due to the condition of the recording.

*4 You can play still pictures (JPEG/TIFF), CD-DA, Video CD and MP3 format data recorded on CD-R/RW.

- The producer of the material can control how discs are played. So you may not always be able to control play as described in these operating instructions. Read the disc’s instructions carefully.

Regarding DVD-Audio

Some multi-channel DVD-Audio will prevent down-mixing (→ page 36) of all or part of their contents if this is the manufacturer’s intention. When playing such discs, or such parts of disc, unless the number of connected speakers is the same as the disc’s channel specification, audio will not be output properly (e.g. part of the audio is missing, multi-channel audio cannot be selected and audio is played in two channels). Refer to the disc’s jacket for more information.

- 2.6 and 5.2 GB DVD-RAM, 12 cm (5″)
- 3.95 and 4.7 GB DVD-R for Authoring
- DVD-R recorded in DVD Video Recording format
- DVD-R (DVD-Video format), DVD-RW (DVD-Video format), +R recorded on another unit and not finalized (➔ page 36).
- PAL discs (you can still play the audio on DVD-Audio)
- DVD-Video with a region number other than “1” or “ALL”
- Blu-ray
- DVD-ROM, DVD-R DL, +R DL, +R (8 cm), CD-ROM, CDV, CD-G, Photo CD, CVD, SVCD, SACD, MV-Disc, PD, Divx Video Disc, etc.

■ How to hold a disc

Do not touch the recorded surface.

■ Concerning non-cartridge discs

Be careful about scratches and dirt.

■ If there is dirt or condensation on the disc

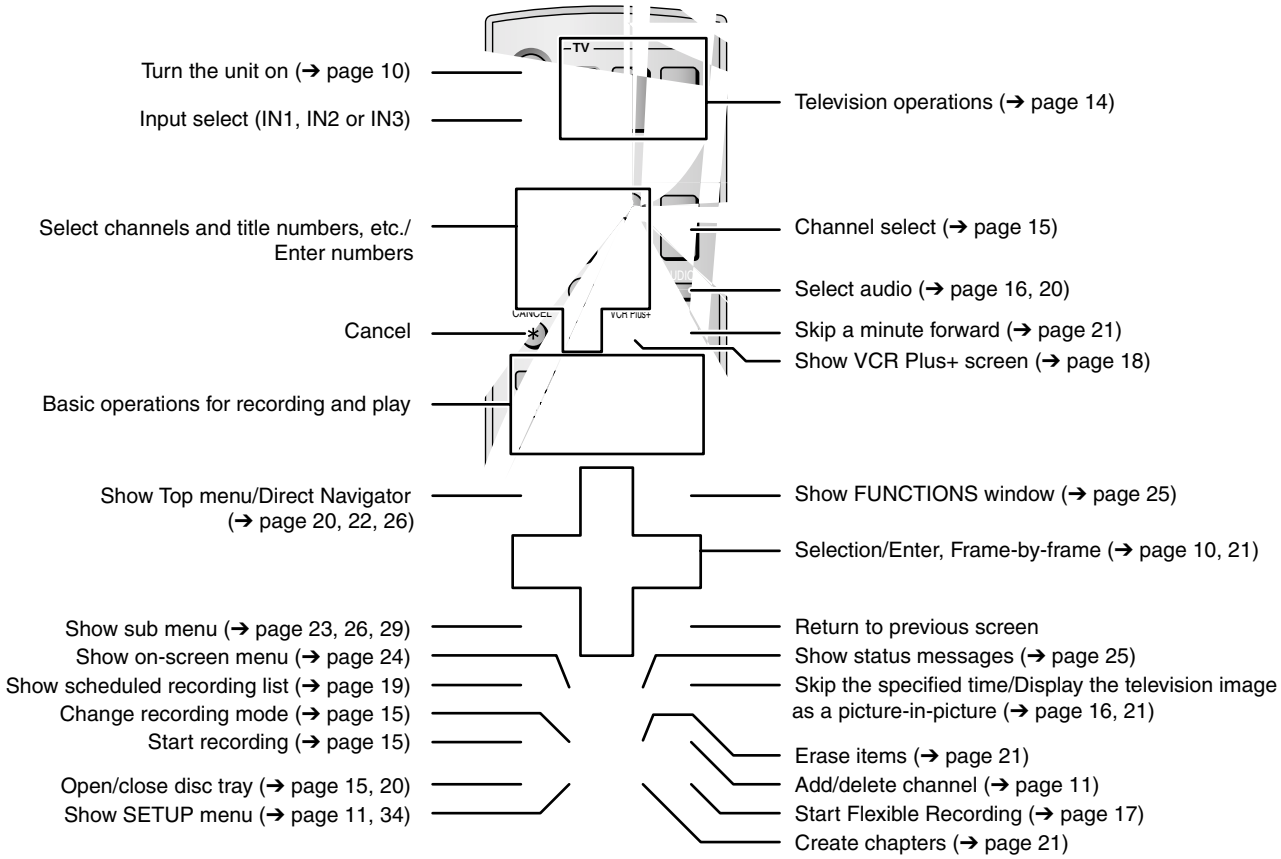
*2

Wipe with a damp cloth and then wipe dry.

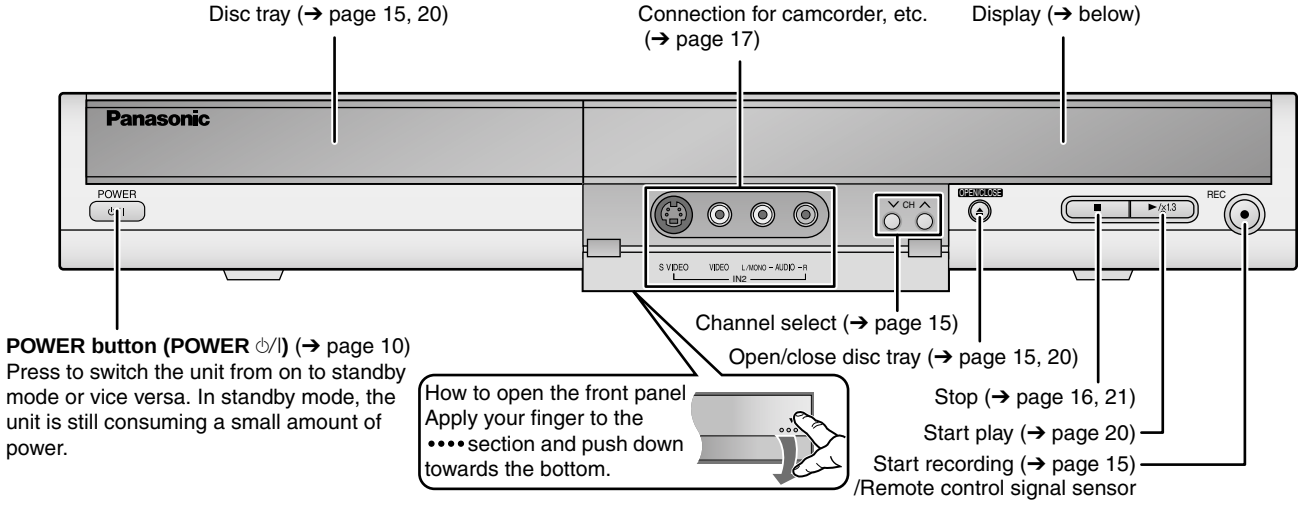
■ Handling precautions

- Do not attach labels or stickers to discs. (This may cause disc warping and un-balanced rotation, rendering it unusable.)
- Write on the label side of the disc only with a soft, oil-based felt pen. Do not use ballpoint pens or other hard writing implements.
- Do not use record cleaning sprays, benzine, thinner, static electricity prevention liquids or any other solvent.
- Do not use scratch-proof protectors or covers.
- Do not drop, stack, or impact discs. Do not place objects on them.
- Do not use the following discs:
  – Discs with exposed adhesive from removed stickers or labels (rented discs, etc).
  – Discs that are badly warped or cracked.
  – Irregularly shaped discs, such as heart shapes.
- Do not p dnT i on th(f)34.7(o)1.4(llo)11.4(-)26.2(ing a)-4.9(r)9.7ascs:
  –ti(s)4.e routunligh at
  –te.5(r)-dxrats.
  –Nthhea
  – Loca9(tioutusceptisab3-7.l6(eoel gnifisc)]TJ 1225693 0 TD 0.0004 Tc -0.0002 T

Re control


Turn the unit on (➔ page 10)
Input select (IN1, IN2 or IN3)
Television operations (➔ page 14)
Select channels and title numbers, etc./ Enter numbers
Channel select (➔ page 15)
Select audio (➔ page 16, 20)
Cancel
Skip a minute forward (➔ page 21)
Show VCR Plus+ screen (➔ page 18)
Basic operations for recording and play
Show Top menu/Direct Navigator (➔ page 20, 22, 26)
Show FUNCTIONS window (➔ page 25)
Selection/Enter, Frame-by-frame (➔ page 10, 21)
Show sub menu (➔ page 23, 26, 29)
Show on-screen menu (➔ page 24)
Show scheduled recording list (➔ page 19)
Change recording mode (➔ page 15)
Start recording (➔ page 15)
Open/close disc tray (➔ page 15, 20)
Show SETUP menu (➔ page 11, 34)
Return to previous screen
Show status messages (➔ page 25)
Skip the specified time/Display the television image as a picture-in-picture (➔ page 16, 21)
Erase items (➔ page 21)
Add/delete channel (➔ page 11)
Start Flexible Recording (➔ page 17)
Create chapters (➔ page 21)

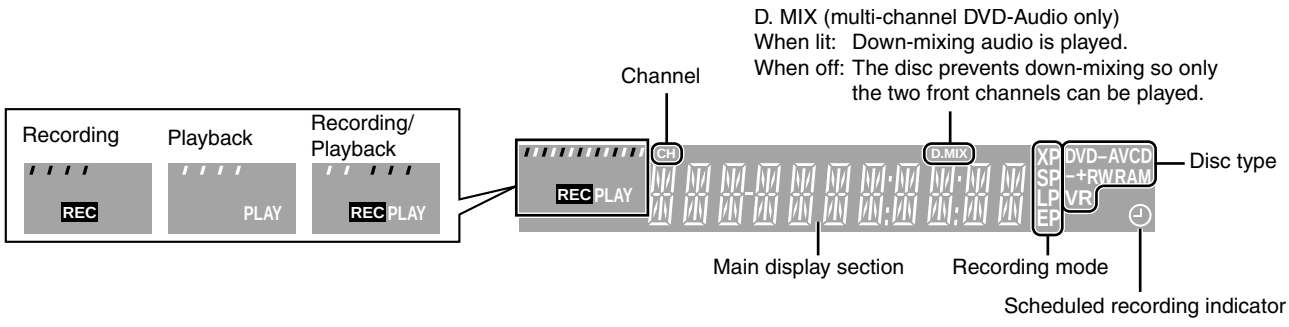
Main unit



POWER button (POWER ⏻/I) (➔ page 10)
Press to switch the unit from on to standby mode or vice versa. In standby mode, the unit is still consuming a small amount of power.

Rear panel terminals (➔ page 7, 8)

The unit's display



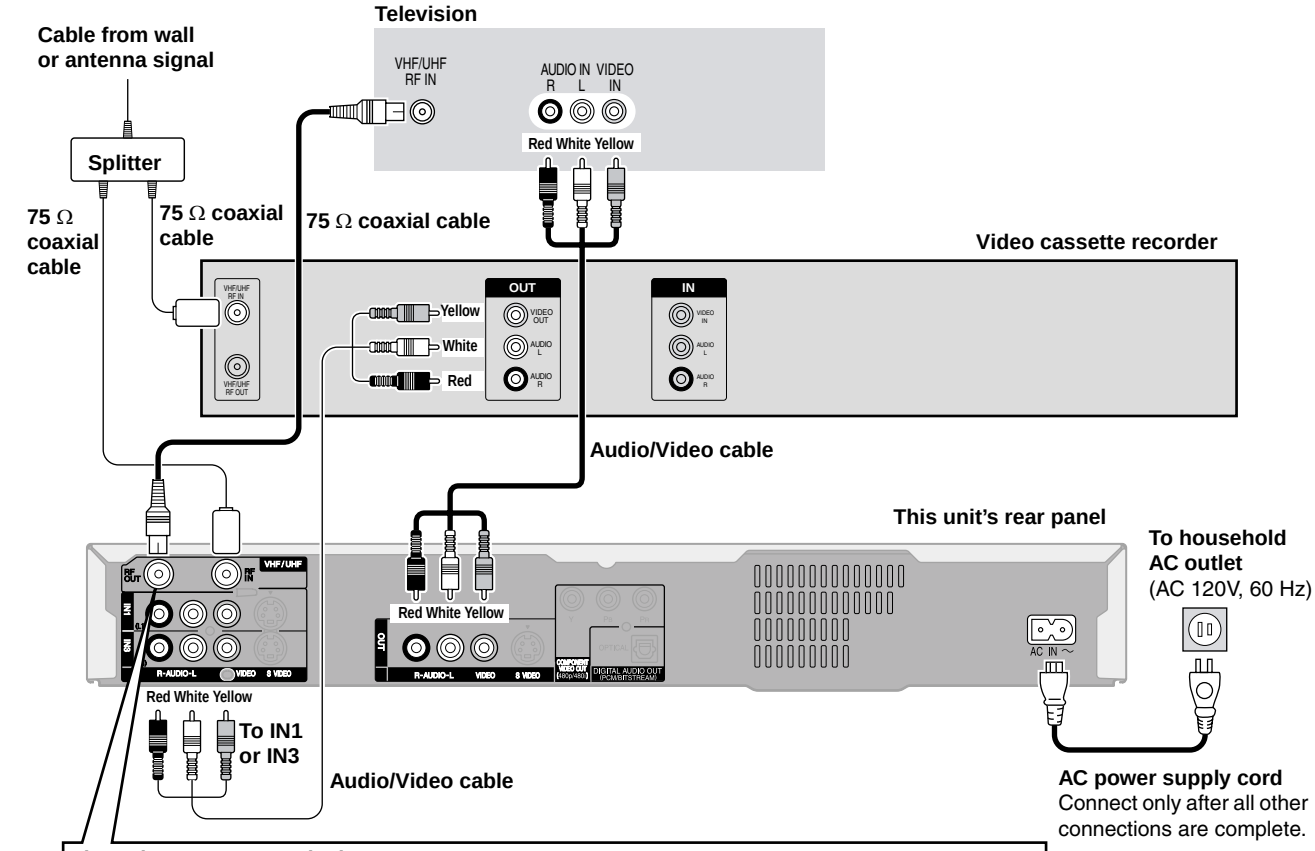
STEP 1 Connection

- The equipment connections described are examples.
- Before connection, turn off all equipment and read the appropriate operating instructions.
- Peripheral equipment and optional cables sold separately unless otherwise indicated.

Connection with a television and video cassette recorder

The connection will allow the video cassette recorder to be used for playback when this unit is turned off. For optimum operation, it is recommended that this unit be connected as shown below.

——— indicates included accessories.
————— indicates accessories not included.



The unit's RF OUT terminal
The picture and sound signal from this unit does not go through the RF OUT terminal to the television. Make sure you connect one of the following terminals on this unit to the television: the AUDIO/VIDEO OUT terminal, the S VIDEO OUT terminal or the COMPONENT VIDEO OUT terminal. If the television has none of these terminals, consult your local dealer.

- Refer to page 9 if the antenna connector doesn't match.

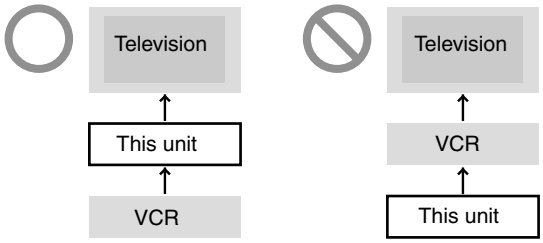
Do not place the unit on amplifiers or equipment that may become hot.
The heat can damage the unit.

Before moving the unit, ensure the disc tray is empty. Failure to do so will risk severely damaging the disc and the unit.

■ When the unit is not to be used for a long time

To save power, unplug it from the household AC outlet. This unit consumes a small amount of power, even when it is turned off (approx. 8.2 W).

Do not connect the unit through a video cassette recorder
Video signals fed through video cassette recorders will be affected by copyright protection systems and the picture will not be shown correctly on the television.



- When connecting to a television with a built in VCR, connect to the input terminals on the television side, not the VCR side.

■ Quick Start (→ page 32)

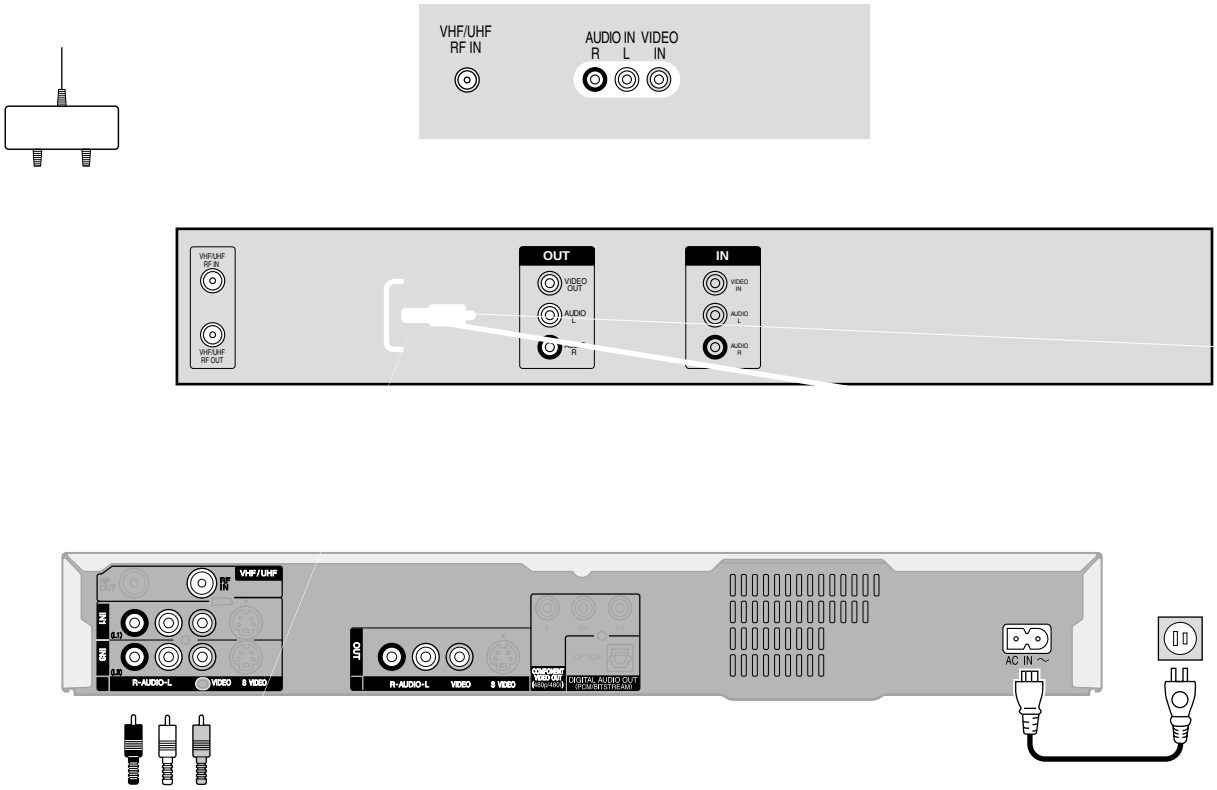
A few seconds after turning on the unit, you can start recording to DVD-RAM.
A few dozen seconds after turning on the unit, you can play a disc or start recording to discs other than DVD-RAM.

STEP 1 Connection

Connection with a cable TV box/satellite receiver and video cassette recorder

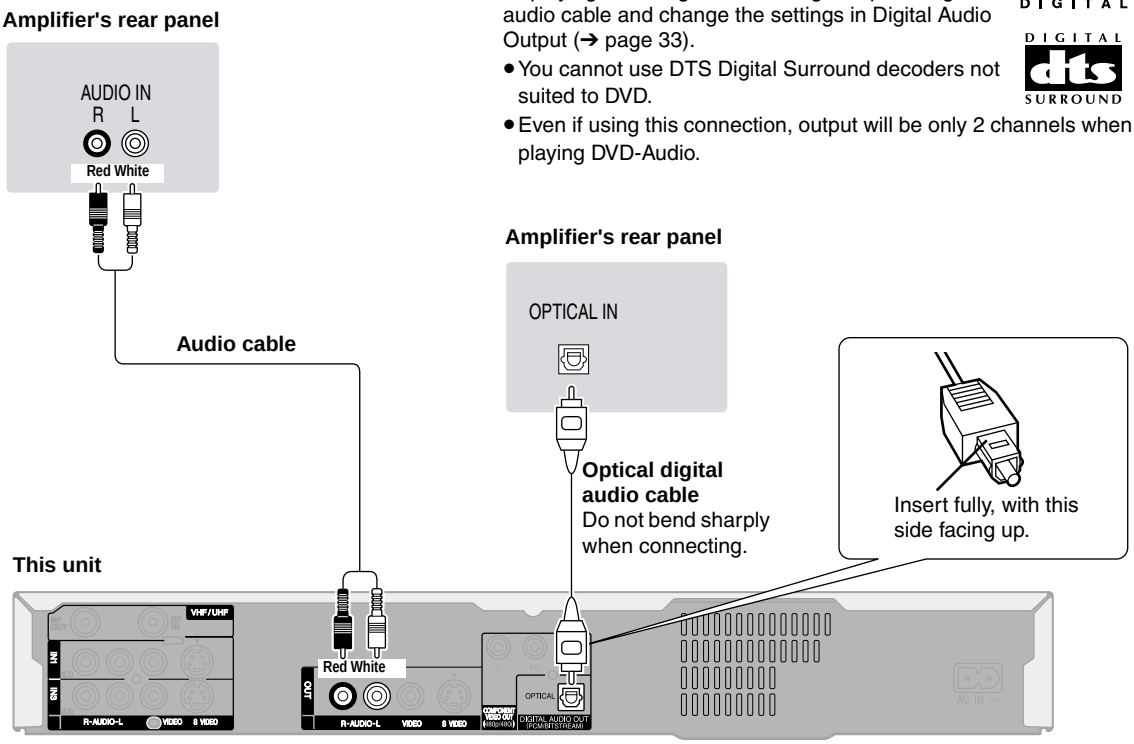
- You need to subscribe to a cable TV service to enjoy viewing their programming.
- Consult your service provider regarding appropriate cable TV box.

The connection will allow the video cassette recorder to be used for playback when this unit is turned off. For optimum operation, it is recommended that this unit be connected as shown below.



Connecting an amplifier or system component

■ Connection to a stereo amplifier



■ To enjoy multi-channel surround sound on DVD-Video

Connect an amplifier with a built-in decoder displaying these logo marks using an optical digital audio cable and change the settings in Digital Audio Output (➔ page 33).

- You cannot use DTS Digital Surround decoders not suited to DVD.
- Even if using this connection, output will be only 2 channels when playing DVD-Audio.

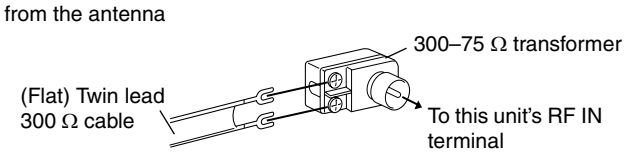
If the antenna connector doesn't match

Other antenna connections to the unit

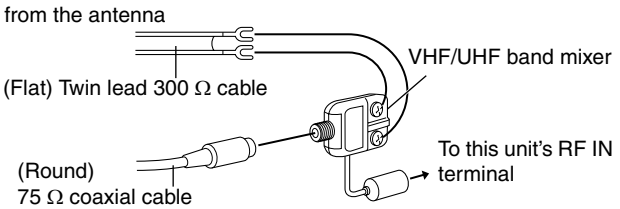
Use one of the following connections to suit the antenna lead.

- If your television has both lead and coaxial VHF terminals, use the lead connection to minimize signal loss.

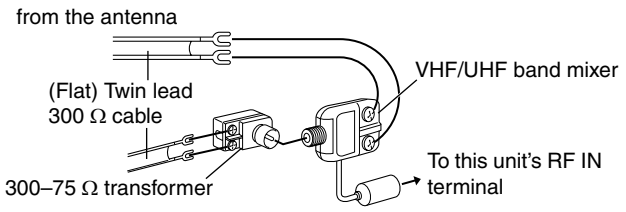
■ A single twin lead



■ A twin lead and a coaxial cable



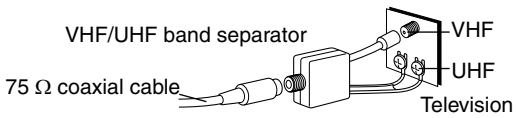
■ Two twin leads



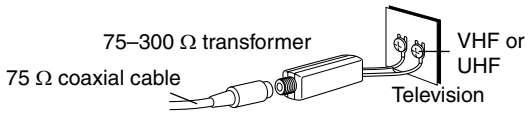
Other antenna connections from the unit to the television

Use one of the following connections to suit the antenna terminals on your television. Refer to the television's operating instructions.

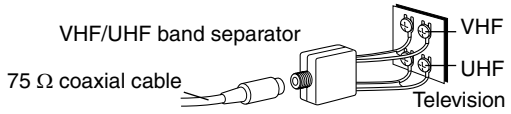
■ A twin lead and coaxial plug terminal



■ A twin lead terminal

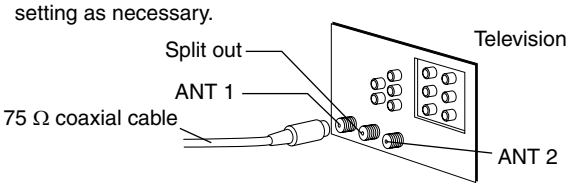


■ Two twin lead terminals



■ Multiple antenna terminals

- Connect to one of the ANT terminals, then change the television's setting as necessary.



■ If the clock is an hour slower or faster than the actual time

Select “–1” or “+1” in “Adjust Time Zone” in the SETUP menu (➔ page 34).

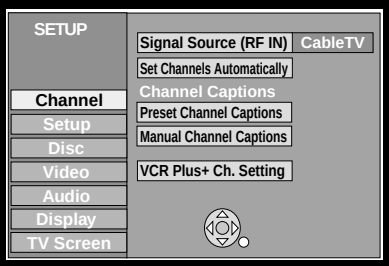
■ If the unit couldn’t set the clock automatically

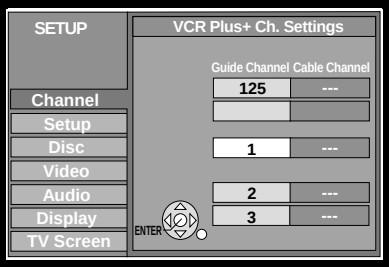
Set the time manually (➔ page 34, Set Clock Manually).

■ To start Plug-in Auto Tuning again (after relocation, for example)

When the unit is on and stopped

Press and hold [∨


SETUP
Channel
Setup
Disc
Video
Audio
Display
TV Screen
Signal Source (RF IN)
CableTV
Set Channels Automatically
Channel Captions
Preset Channel Captions
Manual Channel Captions
VCR Plus+ Ch. Setting

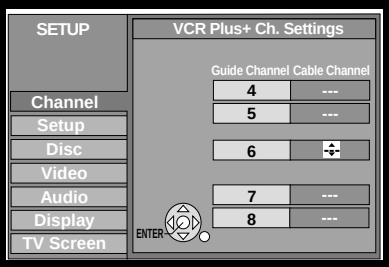

SETUP
Channel
Setup
Disc
Video
Audio
Display
TV Screen
VCR Plus+ Ch. Settings
Guide Channel
Cable Channel
125

1

2

3

ENTER


SETUP
Channel
Setup
Disc
Video
Audio
Display
TV Screen
VCR Plus+ Ch. Settings
Guide Channel
Cable Channel
4

5

6
7

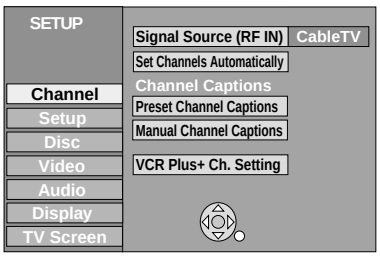
8

ENTER

Channel captions

You can give the preset captions, or manually enter new ones yourself.
The captions you enter are displayed when the channel is displayed and in the Direct Navigator screen.

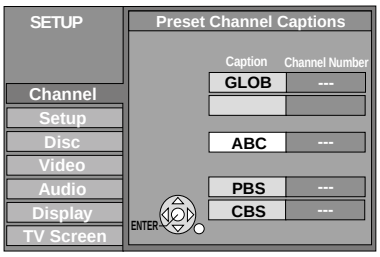
1 Press [SETUP].



2 Press [▲, ▼] to select “Channel” and press [▶].

Preset Channel Captions

3 Press [▲, ▼] to select “Preset Channel Captions” and press [ENTER].



4 Press [▲, ▼] to select the caption and press [▶].

You can choose from the following captions.
ABC, PBS, CBS, CNN, FOX, ESPN, NBC, HBO, A&E, AMC, FAM, MAX, MTV, SHOW, TBS, USA, TNT, CBC, UPN, CTV, WB, TSN, DSC, GLOB

- When selecting the caption, press and hold [▲, ▼] to scroll up and down the screen.

5 Press [▲, ▼] to select the channel corresponding to the caption and press [◀].

- Channels are only displayed if they contain a station and if captions have not been added manually.
- To delete the channel number, press [∗ CANCEL].

Repeat steps 4 and 5 to enter other channels.

6 Press [ENTER].

Manual Channel Captions

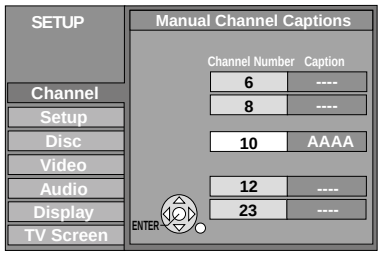
3 Press [▲, ▼] to select “Manual Channel Captions” and press [ENTER].

4 Press [▲, ▼] to select the channel and press [▶].

- Channels are only displayed if they contain a station and if preset captions have not been added.

5 Press [▲, ▼] to select the first character and press [▶].

- You can choose from the following characters:
  A–Z, 0–9, -, &, !, /, (space)
- To delete the caption, press [∗ CANCEL].
- Repeat this step to enter the other characters.



6 Press [◀, ▶] to return to the “Channel Number” column.

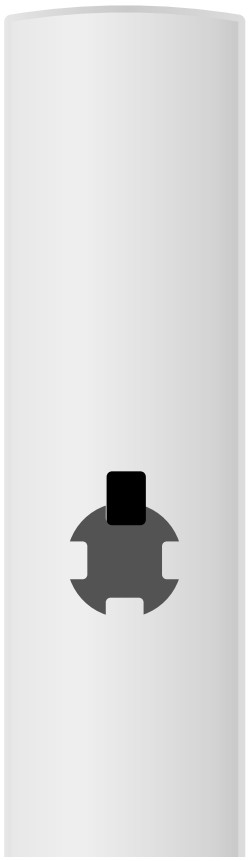
Repeat steps 4–6 to enter other channels.

7 Press [ENTER].

To exit the screen
Press [SETUP].

To return to the previous screen
Press [RETURN].

STEP 4 Set up to match your television and remote control



You can configure the remote control TV operation buttons to turn the television on/off, change the television input mode, select the television channel and change the television volume.

Point the remote control at the television

While pressing [⏻ POWER TV], enter the code with the numbered buttons.

e.g., 01: [0] ➔ [1]

Manufacturer and Code No.

Test by turning on the television and changing channels. Repeat the procedure until you find the code that allows correct operation.

- If your television brand is not listed or if the code listed for your television does not allow control of your television, this remote control is not compatible with your television.

Selecting television type

You do not have to change the setting when connected to a 4: 3 standard aspect television that is not compatible with progressive output (➔ page 36).

1 **Press [SETUP].**

2 **Press [▲, ▼] to select “TV Screen” and press [▶].**

3 **Press [▲, ▼] to select “TV Type” and press [ENTER].**

- Aspect 4: 3/Aspect 16: 9:
- 480p/480i:
  Select “480p” if the television is compatible with progressive output.

4 **Press [▲, ▼] to select the item and press [ENTER].**

Change the remote control code on the main unit and the remote control (the two must match) if you place other Panasonic products close together.

Use “1”, the factory set code, under normal circumstances.

1 **Press [SETUP].**

2 **Press [▲, ▼] to select “Setup” and press [▶].**

3 **Press [▲, ▼] to select “Remote Control Code” and press [ENTER].**

4 **Press [▲, ▼] to select the code (1, 2, or 3) and press [ENTER].**

To change the code on the remote control

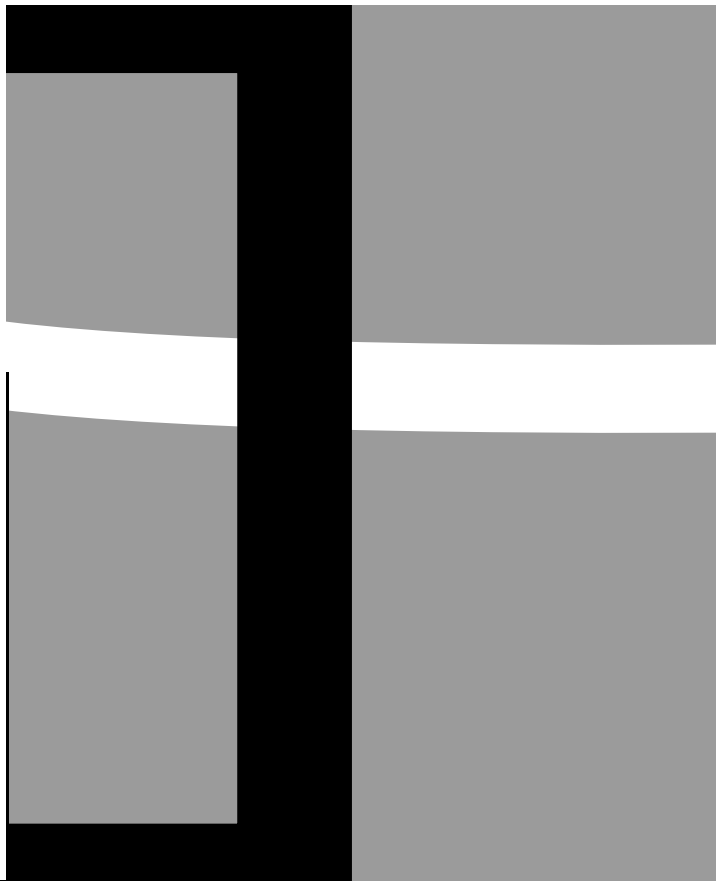
5 **While pressing [ENTER], press and hold the numbered button ([1], [2] or [3]) for more than 2 seconds.**

6 **Press [ENTER].**

■ **When the following indicator appears on the unit’s display**

To exit the screen
Press [SETUP].

To return to the previous screen
Press [RETURN].



Refer to the control reference on page 15.

■ To pause recording

Press [❚❚].
Press again to restart recording.
You can also press [● REC] to restart.
(Title is not split into separate titles.)

■ To stop recording

Press [■].
From the start to the end of the recording is called one title.

-R **-RW(V)** **+R**
It takes about 30 seconds for the unit to complete recording management information after recording finishes.

To specify a time to stop recording—One Touch Recording

During recording
Press [● REC] to select the recording time.
Each time you press the button:

0: 30 ⟶ 1: 00 ⟶ 1: 30 ⟶ 2: 00 ⟶ 3:00 ⟶ 4: 00
↑ Counter (cancel) ⟵

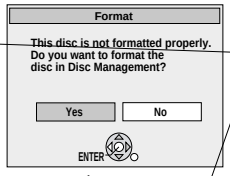
- This does not work during scheduled recordings (➔ page 18) or while using Flexible Recording (➔ page 17).

Off Timer

The unit switches to standby after about 6 hours in the stop mode. You can turn this feature off or change the time to 2 hours (➔ page 32, "Off Timer").

When the format confirmation screen is displayed

When you insert a new DVD-RW or a DVD-RAM or DVD-RW (DVD-Video format) recorded on a computer or other equipment, a format confirmation screen is displayed. Format the disc to use it. However, all the recorded contents are erased.



Press [◀] to select "Yes" and press [ENTER].

■ To format a disc

(Several steps are necessary to format a disc.)
"Erasing all contents of a disc-Format Disc" (➔ page 30)

Selecting audio to be recorded

RAM

Press [AUDIO].

→ **Stereo:** Main audio (stereo)
- If the broadcast is "Mono+SAP", audio will be monaural even if you select Stereo mode.

↓
SAP: Secondary audio program (SAP)
- If recorded in SAP mode, main audio is also recorded.

↓
Mono: Main audio (monaural)
- Select "Mono" if reception is poor during a stereo broadcast.

e.g., "Stereo" is selected

"((" appears when the unit is receiving the audio type you selected.

- If you change the sound setting while recording, the recorded sound will also change.

-R **-RW(V)** **+R**

Select the audio (Main or SAP) in "Select MTS" in the SETUP menu (➔ page 33).

Playing while you are recording

RAM

Playing from the beginning of the title you are recording—Chasing playback

Press [▶] (PLAY) during recording.

To stop play
Press [■].

To stop recording
2 seconds after play stops
Press [■].

To stop scheduled recording
Press [■], then [ENTER] within 5 seconds.
- You can also press and hold [■] on the main unit for more than 3 seconds to stop recording.

Playing a title previously recorded while recording—Simultaneous rec and play

1 **Press [DIRECT NAVIGATOR] during recording.**

2 **Press [▲, ▼, ◀, ▶] to select a title and press [ENTER].**

To stop play
Press [■].

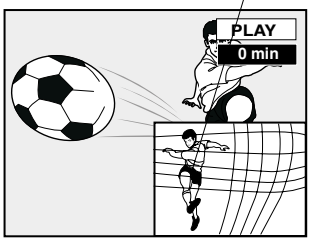
To stop recording
After play stops
Press [DIRECT NAVIGATOR] to exit screen, then press [■].

To stop scheduled recording
Press [■], then [ENTER] within 5 seconds.
- You can also press and hold [■] on the main unit for more than 3 seconds to stop recording.

To exit the Direct Navigator screen
Press [DIRECT NAVIGATOR].

Reviewing the recorded images while recording—Time Slip

1 **Press [TIME SLIP] during recording.**



- You will hear the playback audio.

Press [▲, ▼] to select the time and press [ENTER].

- Press [TIME SLIP] to show the play images in full. Press again to show the play and recording images.

To stop play
Press [■].

To stop recording
2 seconds after play stops
Press [■].

To stop scheduled recording
Press [■], then [ENTER] within 5 seconds.
- You can also press and hold [■] on the main unit for more than 3 seconds to stop recording.

Refer to the control reference on page 15.

Flexible Recording
(Recording that fits the remaining disc space)

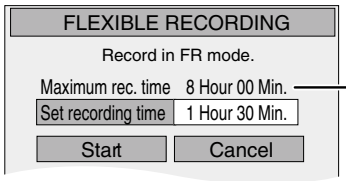
RAM -R -RW(V) +R

The unit sets the best possible picture quality that fits the recording within the remaining disc space. This is convenient when you want the recorded program to fit one disc perfectly or you are concerned about the amount of free space on the disc. The recording mode becomes FR mode.

Preparation
Select the channel to be recorded or the external input.

1 **While stopped**

Press [F Rec].



Maximum recording time
This is the maximum recording time in EP mode.

2 **Press [◀, ▶] to select "Hour" and "Min." and press [▲, ▼] to set the recording time.**

- You can also set the recording time with the numbered buttons.

3 **When you want to start recording**

Press [▲, ▼, ◀, ▶] to select "Start" and press [ENTER].

Recording starts.

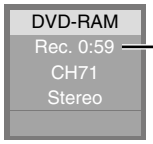
- All the recording modes from XP to EP appear in the display.

To exit the screen without recording
Press [RETURN].

To stop recording partway
Press [■].

To show the remaining time
Press [STATUS].

e.g., DVD-RAM



Remaining time

Using "Flexible Recording" is convenient in these kinds of situations.

- When the amount of free space on the disc makes selecting an appropriate recording more difficult
- When you want to record a long program with the best picture quality possible

e.g., Recording a 90 minute program to disc
If you select XP mode, the program will not fit one disc.

If you try to record a 90 minute program in XP mode, only the first sixty minutes will fit on the disc and the 30 minute balance will not be recorded.

If you select SP mode, the program will fit one disc.

However there will be 30 minutes remaining disc space.

If you select "FLEXIBLE RECORDING" the program will fit one disc perfectly.

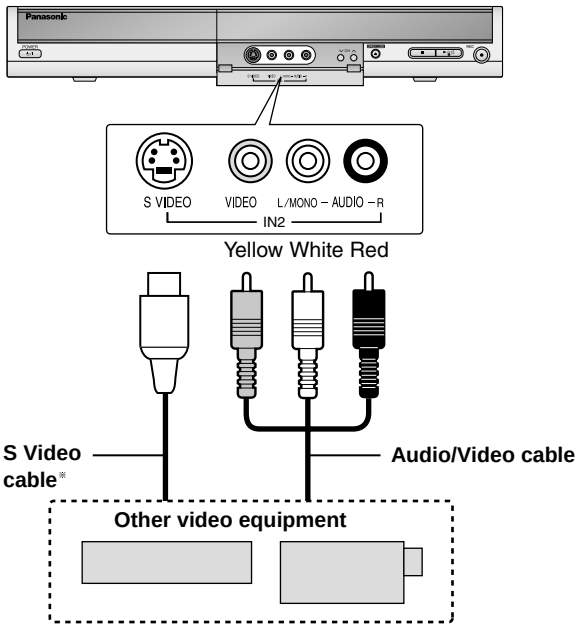
Recording from a video cassette recorder

RAM -R -RW(V) +R

Preparation
Connect a video cassette recorder to this unit's input terminals.
Insert a disc you can use for recording.

Note
When recording using this unit's input terminals, only the sound received at the time of recording will be recorded.
As long as secondary audio that is recorded on the video cassette is not output on the unit in play, it is not recorded.

e.g.: Connecting to the IN2 input terminals



If the audio output of the other equipment is monaural, connect to L/MONO.

※ The S VIDEO terminal achieves a more vivid picture than the VIDEO terminal.

1 **While stopped**

Press [INPUT SELECT] to select the input channel for the equipment you have connected.

e.g., If you have connected to IN2 input terminals, select "IN2".

2 **Press [REC MODE] to select the recording mode.**

3 **Start play on the other equipment.**

4 **Press [● REC].**

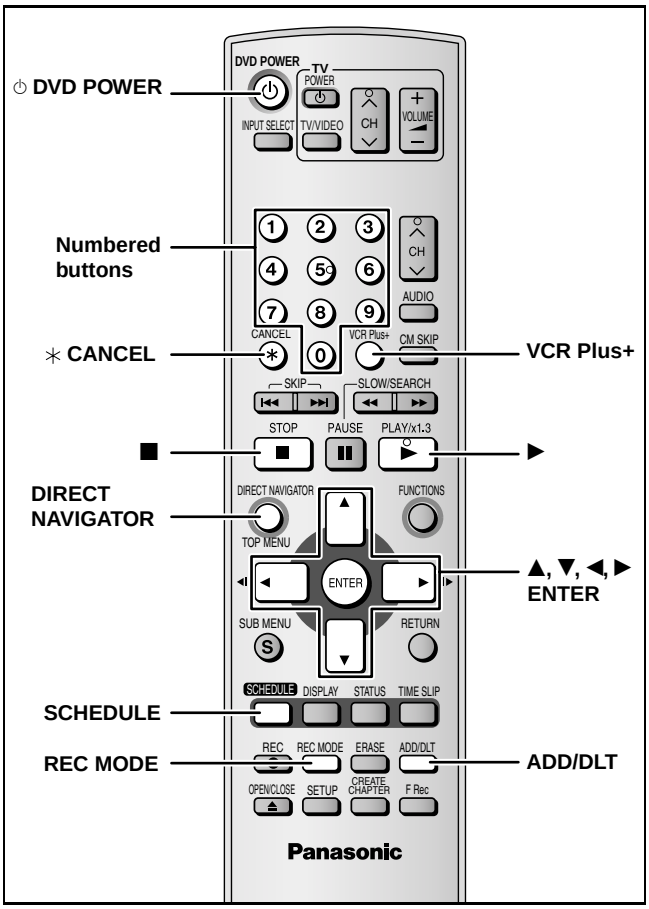
Recording starts.

To skip unwanted parts
Press [❚❚] to pause recording. (Press again to restart recording.)

To stop recording
Press [■].

To record program in such a way as to fill up the remaining space on the disc
➔ Left, Flexible Recording

Almost all videos and DVD software on sale have been treated to prevent illegal copying. Any software that has been so treated cannot be recorded using this unit.



RAM **-R** **-RW(V)** **+R**

You can enter up to 16 programs up to a month in advance.

- When connecting a cable TV box or satellite receiver, the VCR Plus+ system does not work. Program the scheduled recording manually and select the channel on the cable TV box or satellite receiver before the scheduled recording starts.

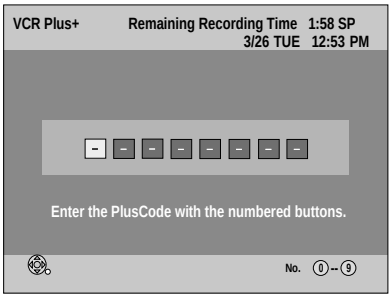
Preparation

- Turn on the television and select the appropriate video input to suit the connections to this unit.
- Check that the time on the unit is correct.

Using VCR Plus+ system to make scheduled recordings

Entering VCR Plus+ numbers is an easy way of scheduled recording. You can find these codes in TV listings in newspapers and magazines.

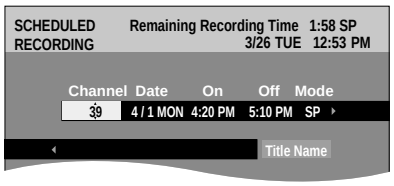
1 Press [VCR Plus+].



2 Press the numbered buttons to enter the PlusCode number.

- **To correct the number**
  Press [◀] to move back to correct a digit.

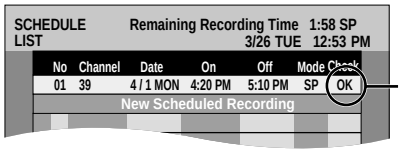
3 Press [ENTER].


SCHEDULED RECORDING
Remaining Recording Time 1:58 SP
3/26 TUE 12:53 PM
Channel Date On Off Mode
39 4 / 1 MON 4:20 PM 5:10 PM SP
Title Name

- When “XP” is displayed in the unit’s display, the recording mode automatically changes to “FR” in order to prevent loss of recording when there is not enough space. Change to “XP” mode if you want to set the scheduled recording using “XP” mode.
- Confirm the program and make corrections if necessary using [▲, ▼, ◀, ▶] (➔ page 19, step 3).
- You can also press [REC MODE] to change the recording mode.
- **Title Name**
  Press [◀, ▶] to select “Title Name” and press [ENTER] (➔page 31).

4 Press [ENTER].

The settings are stored.


SCHEDULE LIST
Remaining Recording Time 1:58 SP
3/26 TUE 12:53 PM
No Channel Date On Off Mode Check
01 39 4 / 1 MON 4:20 PM 5:10 PM SP OK
New Scheduled Recording

Check to make sure “OK” is displayed.

Repeat steps 1–4 to program other recordings.

5 Press [SCHEDULE].

The message “Turn recorder off for Scheduled Recording.” is shown on the television.

6 Press [⏻ DVD POWER].

The unit turns off and “◴” lights on the unit’s display to indicate scheduled recording standby has been activated.

RAM

- Even if the unit is in scheduled recording standby, you can play a disc. Without pressing [⏻ DVD POWER], just press [▶] (PLAY) or [DIRECT NAVIGATOR]. Scheduled recording works even during play.

■ To release the unit from recording standby

Press [⏻ DVD POWER].

The unit turns on and “◴” goes out.

- Be sure to press [⏻ DVD POWER] to return the unit to standby mode before the scheduled recording time. Scheduled recording will work only if “◴” is displayed.

■ To cancel recording when recording has already begun

Press [■], then [ENTER] within 5 seconds.

- You can also press and hold [■] on the main unit for more than 3 seconds to stop recording.

Note

- “◴” flashes when the unit cannot go to scheduled recording standby (e.g., a recordable disc is not in the disc tray).
- The actual time recorded may be longer than the program itself when television programs are recorded using VCR Plus+.
- When you program successive scheduled recordings to start immediately one after the other, the unit cannot record the part at the beginning of the later programs (a few seconds when recording with DVD-RAM and approximately 30 seconds when recording with DVD-R, DVD-RW (DVD-Video format) or +R).
- If you set DST (Daylight Saving Time) to On when manually setting the clock (➔ page 34), scheduled recording may not work when summer switches to winter and vice versa.

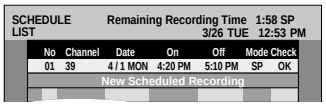
You can enter up to 16 programs up to a month in advance. (Each daily or weekly program is counted as one program.)

- When connecting a cable TV box or satellite receiver, select the channel on the cable TV box or satellite receiver before the scheduled recording starts.

Manually programming scheduled recordings

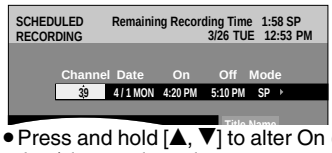
RAM -R -RW(V) +R

1 Press [SCHEDULE].


SCHEDULE LIST
Remaining Recording Time 1:58 SP
3/26 TUE 12:53 PM
No Channel Date On Off Mode Check
01 39 4/1 MON 4:20 PM 5:10 PM SP OK
New Scheduled Recording

2 Press [▲, ▼] to select "New Scheduled Recording" and press [ENTER].

3 Press [►] to move through the items and change the items with [▲, ▼].

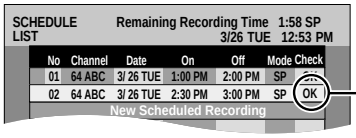


- Press and hold [▲, ▼] to alter On (Start time) and Off (Finish time) in 30-minute increments.
- You can also set Channel, Date, On (Start time), and Off (Finish time) with the numbered buttons.
- You can also press [REC MODE] to change the recording mode.
- **DATE**

Date: Current date up to one month later minus one day
↓↑
Daily timer: Sun-Sat → Mon-Sat → Mon-Fri
↓↑
Weekly timer: Weekly Sun → --- → Weekly Sat

- **Title Name**
  Press [◄, ►] to select "Title Name" and press [ENTER] (➔ page 31).

4 Press [ENTER].


SCHEDULE LIST
Remaining Recording Time 1:58 SP
3/26 TUE 12:53 PM
No Channel Date On Off Mode Check
01 64 ABC 3/ 26 TUE 1:00 PM 2:00 PM SP
02 64 ABC 3/ 26 TUE 2:30 PM 3:00 PM SP OK
New Scheduled Recording

Check to make sure "OK" is displayed.

Repeat steps 2–4 to schedule other recordings.

5 Press [SCHEDULE].

The message "Turn recorder off for Scheduled Recording." is shown on the television.

6 Press [⏻ DVD POWER].

The unit turns off and "◴" lights on the unit's display to indicate scheduled recording standby has been activated.

RAM

- Even if the unit is in scheduled recording standby, you can play a disc. Without pressing [⏻ DVD POWER], just press [►] (PLAY) or [DIRECT NAVIGATOR]. Scheduled recording works even during play.

■ To release the unit from recording standby

Press [⏻ DVD POWER].

The unit turns on and "◴" goes out.

- Be sure to press [⏻ DVD POWER] to return the unit to standby mode before the scheduled recording time. Scheduled recording will work only if "◴" is displayed.

■ To cancel recording when recording has already begun

Press [■], then [ENTER] within 5 seconds.

- You can also press and hold [■] on the main unit for more than 3 seconds to stop recording.

Note

- "◴" flashes when the unit cannot go to scheduled recording standby (e.g., a recordable disc is not in the disc tray).
- When you program successive scheduled recordings to start immediately one after the other, the unit cannot record the part at the beginning of the later programs (a few seconds when recording with DVD-RAM and approximately 30 seconds when recording with DVD-R, DVD-RW (DVD-Video format) or +R).
- If you set DST (Daylight Saving Time) to On when manually setting the clock (➔ page 34), scheduled recording may not work when summer switches to winter and vice versa.

Check, change or delete a program

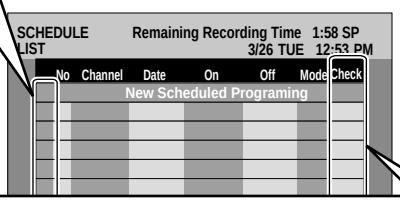
RAM -R -RW(V) +R

- Even when the unit is turned off, you can display the schedule list by pressing [SCHEDULE].

Press [SCHEDULE].

Icons

- ● This program is currently recording.
- Ⓦ The times overlap those in another program. Recording of the program with the later start time starts when the earlier program finishes recording.
- ⊖ You stopped a weekly or daily scheduled recording. The icon disappears the next time the scheduled program starts recording.
- Ⓕ The disc was full so the program failed to record.
- ▨ The material was copy-protected so it was not recorded.
- Ⓧ The program did not complete recording because the disc is dirty or for some other reason.


SCHEDULE LIST
Remaining Recording Time 1:58 SP
3/26 TUE 12:53 PM
No Channel Date On Off Mode Check
New Scheduled Programing

Message displayed in the Check line

- **OK:** Displayed if the recording can fit in the remaining space.
- → **(Date):** For recordings made daily or weekly, the display will show until when recordings can be made (up to a maximum of one month from the present time) based on the time remaining on the disc.
- **! :** It may not be possible to record because:
  - the disc is write-protected
  - there is no more space left
  - the number of possible titles has reached its maximum.

■ To change a program

Press [▲, ▼] to select the program and press [ENTER].
(➔ left, step 3)

■ To delete a program

Press [▲, ▼] to select the program and press [× CANCEL] or [ADD/DLT].

■ To exit the schedule list

Press [SCHEDULE].

The message "Turn recorder off for Scheduled Recording." is shown on the television.

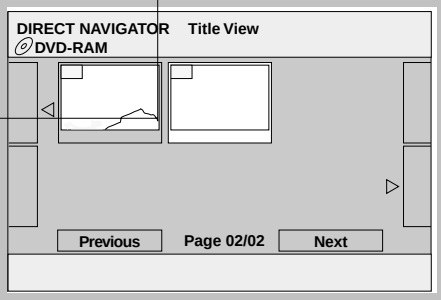
■ To put the unit on scheduled recording standby

Press [⏻ DVD POWER].

The unit turns off and "◴" lights on the unit's display to indicate scheduled recording standby has been activated.

- Programs that failed to record are displayed gray. They are automatically deleted from the schedule list at 4 a.m. two days later.
- During scheduled recording, you can change the end time as long as the recording mode is not "FR".

RAM -R -RW(V) +R -RW(VR)



Direct Navigator screen icons

Title protected.

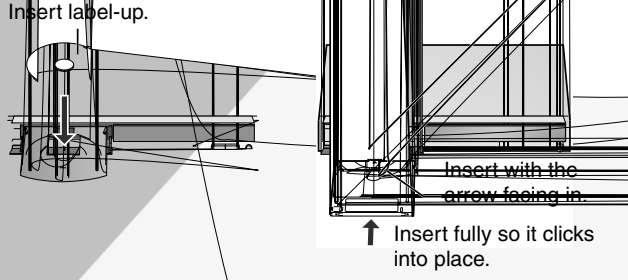
Title that was not recorded due to recording protection (Digital broadcasts, etc.)

Title cannot be played because data is damaged.

Currently recording.

Title with “One time only recording” restriction

Changing audio during play



RAM -R -RW(V) +R -RW(VR)

DVD-V DVD-A CD VCD

Operations during play

Stop

Press [■].

The stopped position is memorized.
When stopped position memorized, "PLAY" flashes in the unit's display.
(Excluding when playing from the Direct Navigator and when playing a playlist.)

Resume play function
Press [▶] (PLAY) to restart from this position.

Stopped position
- If [■] is pressed several times, "PLAY" disappears and the position is cleared.
- The position is cleared if the unit is turned off or the tray is opened.

Pause

Press [❚❚].
Press again or press [▶] (PLAY) to restart play.

Search

Press [◀◀] or [▶▶].
- The speed increases up to 5 steps.
- Press [▶] (PLAY) to restart play.
- Audio is heard during first level search forward.
  Audio is heard during all levels of search. DVD-A (excluding moving picture parts) CD
- Depending on the disc, searching may not be possible.

Skip

While playing or paused, press [|◀◀] or [▶▶|].
- Each press increases the number of skips.

Starting from a selected item

Press the numbered buttons.

e.g., 5: [0] ➔ [5]
15: [1] ➔ [5]

CD (MP3, JPEG and TIFF discs only) 5: [0] ➔ [0] ➔ [5]
15: [0] ➔ [1] ➔ [5]

DVD-A Selecting groups
While stopped (screen saver is displayed on the television ➔ right)
5: [5]

- This works only when stopped (screen saver is displayed on the television ➔ right) with some discs.

Quick View

RAM

Press and hold [▶] (PLAY/x1.3).
The play speed can be increased without distorting the audio.
- Press again to return to normal speed.

Slow-motion

RAM -R -RW(V) +R DVD-V DVD-A (Motion picture parts only) -RW(VR) VCD

While paused, press [◀◀] or [▶▶].
- The speed increases up to 5 steps.
- Press [▶] (PLAY) to restart play.
- Forward direction only. VCD
- The unit will pause if slow-motion play is continued for approximately 5 minutes (excluding DVD-V DVD-A VCD).

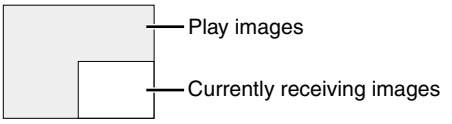
Frame-by-frame

RAM -R -RW(V) +R DVD-V DVD-A (Motion picture parts only) -RW(VR) VCD

While paused, press [◀❚❚] or [❚❚▶].
- Each press shows the next frame.
- Press and hold to change forward or backward in succession.
- Press [▶] (PLAY) to restart play.
- Forward direction only. VCD

Displaying the television image as a picture-in-picture

Press [TIME SLIP].
The unit displays the television image as a picture-in-picture.
- You will hear the playback audio.
- Press [TIME SLIP] again to cancel.
- The blue background does not appear on the receiving screen even if you select "On" for "Blue Background" in the SETUP menu (➔ page 33).



- You can change the channel being received by pressing [∧ ∨ CH].
- You cannot change the channel being received while recording.

Skipping the specified time (Time Slip)

RAM -R -RW(V) +R -RW(VR)

1 Press [TIME SLIP].
2 Press [▲, ▼] to select the time and press [ENTER].
Play skips to the specified time.
- Press [TIME SLIP] to show the play images in full.

CM Skip

RAM -R -RW(V) +R -RW(VR)

Press [CM SKIP].
Play restarts from approximately a minute later.

Editing operations during play

Erase

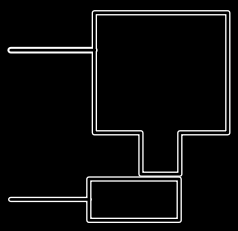
RAM -R -RW(V) +R

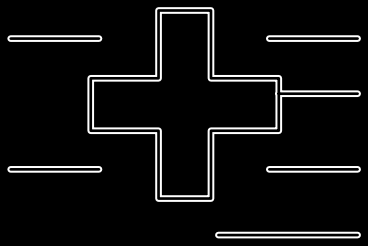
1 Press [ERASE].
2 Press [◀, ▶] to select "Erase" and press [ENTER].
- A title cannot be restored once it is erased. Make certain before proceeding.
- You cannot erase while recording.
- The available recording space on DVD-R or +R does not increase when you erase titles.
- Available recording space on a DVD-RW (DVD-Video format) increases only when the last recorded title is erased. It does not increase if other titles are erased.

Create chapter

RAM
(➔ page 26, Title/Chapter)

Press [CREATE CHAPTER].
Chapters are divided at the point pressed.
- You cannot create chapters when the unit is in scheduled recording standby.

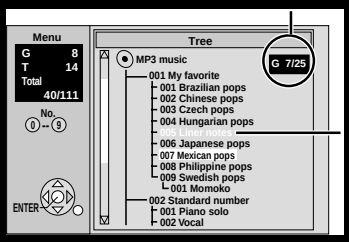




Playing MP3

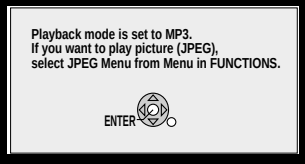
CD

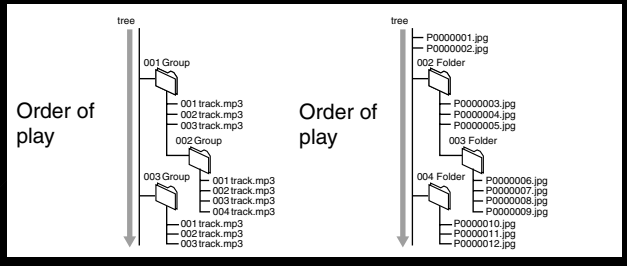
E

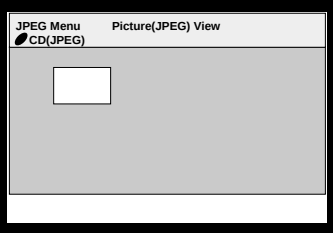


Playing still pictures (JPEG/TIFF)

CD







2 Press [▲, ▼, ◀, ▶] to select the still picture and press [ENTER].

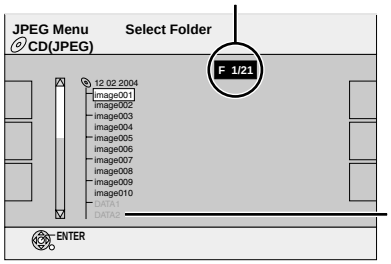
- The selected still picture is displayed on the screen.
  You can also select still pictures with the number buttons.
  e.g., 5: [0] ➔ [0] ➔ [5]
  15: [0] ➔ [1] ➔ [5]

■ To select another folder

While the JPEG Menu is displayed

1 Press [▲, ▼, ◀, ▶] to select “Folder” and press [ENTER].

F: Selected folder no./Total folder no.



You cannot select folders that contain no compatible files.

2 Press [▲, ▼] to select the folder and press [ENTER].

To display the previous or next still picture during play
Press [◀, ▶].

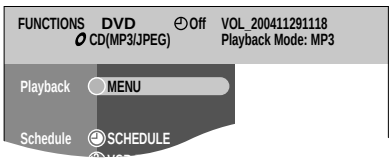
To show other pages
Press [I◀◀, ▶▶I].

To exit the menu screen
Press [TOP MENU].

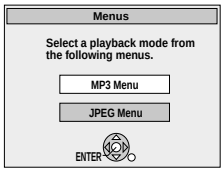
To select JPEG Menu

1 Press [ENTER].

2 Press [FUNCTIONS].



3 Press [▲, ▼] to select “MENU” and press [ENTER].

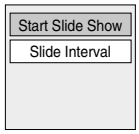


4 Press [▲, ▼] to select “JPEG Menu” and press [ENTER].

To display still pictures one by one

After Step1 (➔page 22, Playing still pictures (JPEG/TIFF))

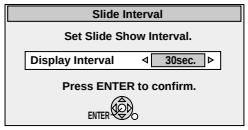
2 Press [▲, ▼, ◀, ▶] to select “Folder” and press [SUB MENU].



3 Press [▲, ▼] to select “Start Slide Show” and press [ENTER].

To change the slide interval

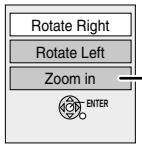
① In step 2 above, press [▲, ▼] to select “Slide Interval” and press [ENTER].



② Press [◀, ▶] to select the slide interval and press [ENTER].
- You can select a slide interval between 0-30 seconds.

To rotate and zoom in / zoom out

1 While playing, Press [SUB MENU].



The “Zoom in / Zoom out” function is only available for still pictures smaller than 640 x 480 pixels.

2 Press [▲, ▼] to select the item and press [ENTER].

To return the picture to its original size

① Press [SUB MENU].
② Press [▲, ▼] to select “Zoom out” and press [ENTER].

To return the rotated picture to its original position

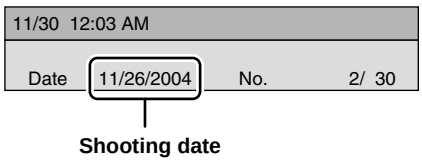
① Press [SUB MENU].
② Press [▲, ▼] to select the opposite rotation button and press [ENTER].

Note

- The rotation and enlargement information will not be stored.
- When zooming in, the picture may be cut off.

To view the picture properties

Press [STATUS] twice.



To exit the picture properties screen
Press [STATUS].

Disc menu–Setting disc content

RAM -R -RW(V) +R -RW(VR)

DVD-V DVD-A

RAM -R -RW(V) +R -RW(VR)

DVD-V DVD-A

RAM -R -RW(V) +R -RW(VR)

RAM -RW(VR) VCD

DVD-V DVD-A

DVD-A

VCD

Play menu–Change play sequence

CD VCD

RAM -R -RW(V) +R DVD-V -RW(VR)

DVD-A CD

RAM

RAM -R -RW(V) +R DVD-V -RW(VR)

DVD-A CD VCD

Video menu–Change picture quality

Picture RAM -R -RW(V) +R DVD-V DVD-A -RW(VR)

To select the picture mode during play

- **Normal:** Default setting
- **Soft:** Soft picture with fewer video artifacts
- **Fine:** Details are sharper
- **Cinema:** Mellows movies, enhances detail in dark scenes.

MPEG-DNR RAM -R -RW(V) +R DVD-V DVD-A -RW(VR)

Reduces noise and picture degradation.
On←→Off

Progressive※ **(➔ page 36)**

Select “On” to enable progressive output.

- Select “Off” if the picture is stretched horizontally.
- When progressive output is on, closed captions cannot be displayed.

Transfer※ (When “Progressive” is set to “On”.)

Select the method of conversion for progressive output to suit the type of material being played (➔ page 36, Film and video).

- **Auto1 (normal):** Detects 24 frame-per-second film content and appropriately converts it.
- **Auto2:** Compatible with 30 frame-per-second film content in addition to 24 frame-per-second film content.
- **Video:** Select when using Auto1 and Auto2, and the video content is distorted.

Line-in NR (Only when IN1, IN2 or IN3 is selected.)

Reduces video tape noise while dubbing.
Depending on the software, jittering may occur.

- **Automatic:** Noise reduction only works on picture input from a video tape.
- **On:** Noise reduction works for any video input.
- **Off:** Noise reduction is off. Select when you want to record input as is.

※ Only when you have selected “480p” in “TV Type” (➔ page 14).

Audio menu–Change sound effect

V.S.S. RAM -R -RW(V) +R DVD-V DVD-A -RW(VR)
(Dolby Digital, 2-channel or over only)

Enjoy a surround-like effect if you are using two front speakers only.

- Turn V.S.S. off if it causes distortion.
- V.S.S. does not work for SAP recordings.

Dialog Enhancer RAM -RW(V) +R DVD-V DVD-A -RW(VR)
(Dolby Digital, 3-channel or over only, including a center channel)

The volume of the center channel is raised to make dialog easier to hear.

Other menu–Change the display position

Position
1 (Standard) - 5: The higher the setting the lower the screen moves.

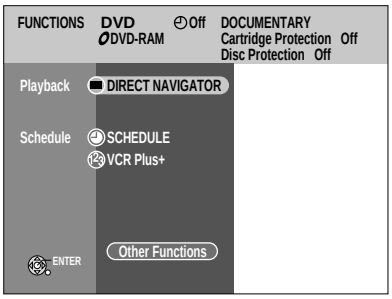
FUNCTIONS window and Status messages

FUNCTIONS window

By using the FUNCTIONS window you may access the main functions quickly and easily.

1 **While stopped**

Press [FUNCTIONS].



Functions displayed depend on the type of disc.

2 **Press [▲, ▼] to select an item and press [ENTER].**

- If you select “Other Functions”, press [▲, ▼] to select an item and press [ENTER].

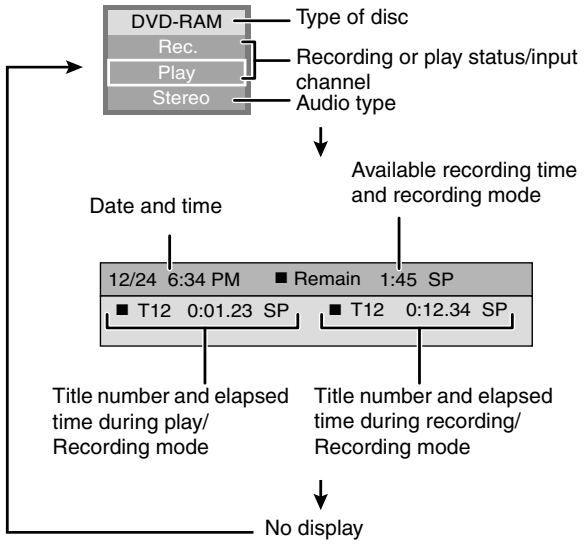
To exit the FUNCTIONS window
Press [FUNCTIONS].

Status messages

Status messages appear on the television during operation to show the condition of the unit.

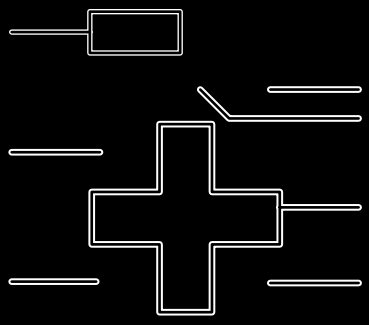
Press [STATUS].

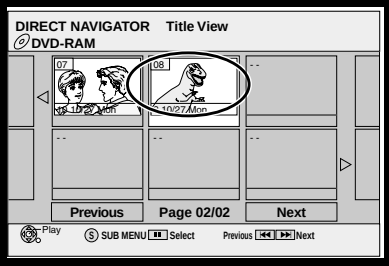
The display changes each time you press the button.



Editing titles/chapters and playing chapters

RAM

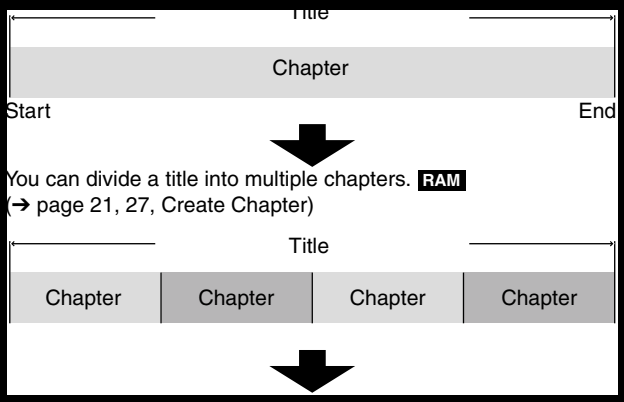


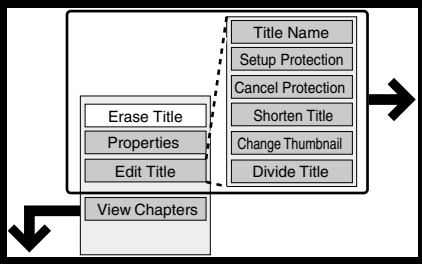


To show other pages
Press [▲, ▼, ◀, ▶] to select “Previous” or “Next” and press [ENTER].
- You can also press [|◀◀, ▶▶|] to show other pages.

Multiple editing
Select with [▲, ▼, ◀, ▶] and press [❚❚]. (Repeat.)
A check mark appears. Press [❚❚] again to cancel.

RAM -R -RW(V) +R



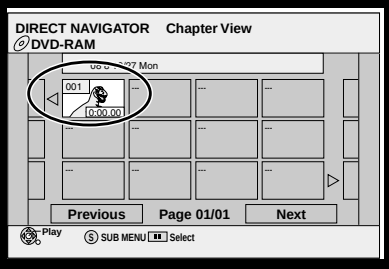


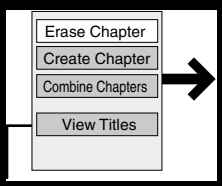
RAM

-R -RW(V) +R

+R

+R





Title operations

Erase Title

Press [◀, ▶] to select “Erase” and press [ENTER].

- **Once erased, the recorded contents are lost and cannot be restored.** Make certain before proceeding.
- The available recording space on DVD-R or +R does not increase when you erase titles.
- Available recording space on a DVD-RW (DVD-Video format) increases only when the last recorded title is erased. It does not increase if other titles are erased.

Properties

Information (e.g., time and date) is shown.

- Press [ENTER] to exit the screen.

Title Name

You can give names to recorded titles.

→ Page 31, Entering text

Setup Protection
Cancel Protection

If you [illegible] will protect the title from accidental erasure.

Press [◀, ▶] to select “Yes” and press [ENTER].

The lock symbol appears when the title is protected.

Shorten Title

(→ below, “For quicker editing”)

You can remove unnecessary parts of the recording such as commercials.

Press [ENTER] at the start point and end point of the section you want to erase.

Press [▲, ▼] to select “Exit” lect “Exiaectst

Multiple editing is possible.

Multiple editing is possible.

ress [▲, ▼, ◀,
and press [E

ect the chapter you
playlist and press

ecording.

NS].
to select “Other
nd press [ENTER].

- Press [▲] to select other source titles.
- Repeat steps 6–7 to add other chapters.

8 Press [RETURN].

To exit the screen
Press [RETURN] several times.

To return to the previous screen
Press [RETURN].

Editing and playing playlists/chapters

RAM -RW(VR) (play only)

1 **While stopped**

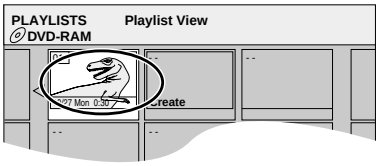
Press [FUNCTIONS].

2 **Press [▲, ▼] to select "Other Functions" and press [ENTER].**

3 **Press [▲, ▼] to select "PLAYLISTS" and press [ENTER].**

4 **Press [▲, ▼, ◄, ►] to select the playlist.**

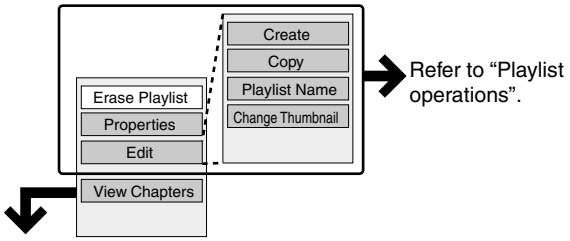
To start play ➔ Press [ENTER].
To edit ➔ Step 5.



- **To show other pages/Multiple editing (➔ page 26)**

5 **Press [SUB MENU], then [▲, ▼] to select the operation and press [ENTER].**

- If you select "Edit", press [▲, ▼] to select the operation and press [ENTER].

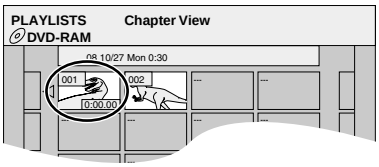


Refer to "Playlist operations".

If you select "View Chapters"

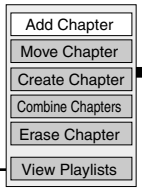
6 **Press [▲, ▼, ◄, ►] to select the chapter.**

To start play ➔ Press [ENTER].
To edit ➔ Step 7.



- **To show other pages/Multiple editing (➔ page 26)**

7 **Press [SUB MENU], then [▲, ▼] to select the operation and press [ENTER].**



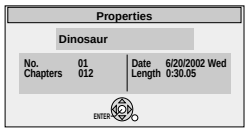
Refer to "Chapter operations".

- You can go back to the Playlist View.

To exit the screen
Press [RETURN] several times.

To return to the previous screen
Press [RETURN].

Playlist operations

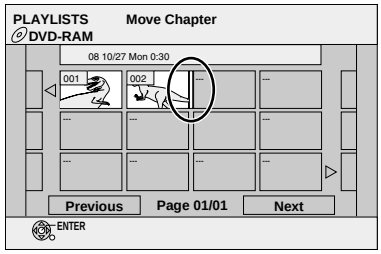
Erase Playlist ※ RAM	**Press [◄, ►] to select "Erase" and press [ENTER].**
Properties RAM -RW(VR)	Playlist information (e.g., length and date) is shown. ● Press [ENTER] to exit the screen. 
Create RAM	➔ page 28, Creating playlists, Step 5-8
Copy ※ RAM	**Press [◄, ►] to select "Copy" and press [ENTER].**
Playlist Name RAM	➔ page 31, Entering text
Change Thumbnail RAM	➔ page 27, Change Thumbnail

※ Multiple editing is possible.

Chapter operations

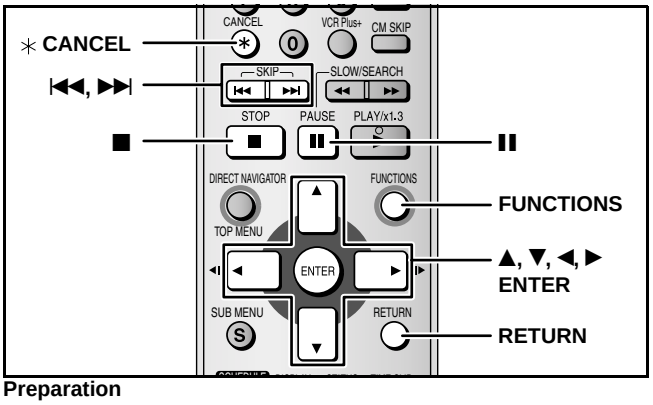
RAM

- Editing chapters in a playlist does not modify the source titles and source chapters.

Add Chapter	➔ page 28, Creating playlists, Step 5-8
Move Chapter	**Press [▲, ▼, ◄, ►] to select the position to insert the chapter and press [ENTER].** 
Create Chapter	➔ page 27, Create Chapter
Combine Chapters	➔ page 27, Combine Chapters
Erase Chapter ※	➔ page 27, Erase Chapter

※ Multiple editing is possible.

Editing



Preparation

- Turn on the television and select the appropriate video input to suit the connections to this unit.
- Turn the unit on.
- Insert the disc to be managed.

1 **While stopped**

Press [FUNCTIONS].

2 **Press [▲, ▼] to select "Other Functions" and press [ENTER].**

3 **Press [▲, ▼] to select "DISC MANAGEMENT" and press [ENTER].**

Select which step 4 to perform depending on what you want to do next.

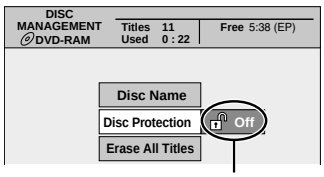
Setting the protection

RAM

steps 1-3 (➔ above)

4 **Press [▲, ▼] to select "Disc Protection" and press [ENTER].**

5 **Press [◄, ►] to select "Yes" and press [ENTER].**

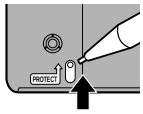


The lock symbol appears closed when the disc is write-protected.

Setting the protection for the whole disc

- For a DVD-RAM with a cartridge

With the write-protect tab in the protect position, play automatically starts when inserted in the unit.



Providing a disc with a name

RAM **-R** **-RW(V)** **+R**

Preparation

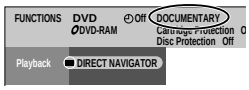
- Release protection (➔ above).

steps 1-3 (➔ above)

4 **Press [▲, ▼] to select "Disc Name" and press [ENTER].**

➔ page 31, Entering text

- The disc name is displayed in the FUNCTIONS window.
- With a finalized DVD-R, DVD-RW (DVD-Video format) and +R, the name is displayed in the Top Menu.



To exit the screen
Press [RETURN] several times.

To return to the previous screen
Press [RETURN].

Erasing all titles–Erase All Titles

RAM

Preparation

- Release protection (➔ left).

steps 1-3 (➔ left)

4 **Press [▲, ▼] to select "Erase All Titles" and press [ENTER].**

5 **Press [◄, ►] to select "Yes" and press [ENTER].**

6 **Press [◄, ►] to select "Start" and press [ENTER].**

A message appears when finished.

7 **Press [ENTER].**

Note

- **Once erased, the recorded contents are lost and cannot be restored.** Make certain before proceeding.
- Erasing all video titles will result in all playlists also being erased.
- Erase does not work if one or more titles are protected.

Erasing all contents of a disc–Format Disc

RAM **-RW(V)** **-RW(VR)**

Note

- **Formatting erases all contents, and it cannot be restored. Check carefully before proceeding.** The contents are erased when you format it even if you have set protection.

Preparation

- Release protection (➔ left).

steps 1-3 (➔ left)

4 **Press [▲, ▼] to select "Format Disc" and press [ENTER].**

5 **Press [◄, ►] to select "Yes" and press [ENTER].**

6 **Press [◄, ►] to select "Start" and press [ENTER].**

A message appears when formatting is finished.

7 **Press [ENTER].**

Note

- **Do not disconnect the AC power supply cord while formatting.** This can render the disc unusable.
  Formatting normally takes a few minutes. However, it may take up to a maximum of 70 minutes.

- **To stop formatting**
  Press [RETURN].
  (You can cancel formatting if it takes more than 2 minutes. The disc must be reformatted if you do this.)
- Formatting cannot be performed on DVD-R, +R or CD-R/RW.
- You can format DVD-RW only as DVD-Video format on this unit.
- When a disc has been formatted using this unit, it may not be possible to use it on any other equipment.

To exit the screen
Press [RETURN] several times.

To return to the previous screen
Press [RETURN].

Enabling DVD-R, DVD-RW (DVD-Video format) or +R to be played on other equipment–Finalize

-R -RW(V) +R

steps 1-3 (→ page 30)

4 Press [▲, ▼] to select “Playback will start with:” and press [ENTER].

Press [▲, ▼] to select “Top Menu” or “First Title” and press [ENTER].

You can select whether to show the top menu after finalizing.

Top Menu: The top menu appears first.

First Title: The disc content is played without displaying the top menu.

5 Press [▲, ▼] to select “Finalize” and press [ENTER].

6 Press [◀, ▶] to select “Yes” and press [ENTER].

7 Press [◀, ▶] to select “Start” and press [ENTER].

A message appears when finished.

8 Press [ENTER].

- Finalizing starts.
- You cannot cancel finalizing.

Note

When finalizing a high-speed recording compatible disc, it may take longer than displayed on the confirmation screen (approximately four times).

After finalizing

- **-R +R The disc becomes play-only and you can no longer record or edit.**
- **-RW(V) You can record and edit the disc after formatting (→ left) although it becomes play-only after finalizing.**
- Titles are divided into about 5-minute※ chapters.

※ This time varies greatly depending on the condition and mode of recording.

- There is a pause of several seconds between titles and chapters during play.

Do not disconnect the AC power supply cord while finalizing.

This will render the disc unusable.

- Finalizing takes up to 15 minutes.

- You cannot finalize DVD-R, DVD-RW (DVD-Video format) or +R recorded on other manufacturers’ equipment.
- DVD-R, DVD-RW (DVD-Video format) or +R finalized on this unit may not be playable on other players due to the condition of the recording.
- Visit Panasonic’s homepage for more information about DVDs.
  For U.S.A.: **http://www.panasonic.com/playDVD-R**
  For Canada: **www.panasonic.ca**

To exit the screen

Press [RETURN] several times.

To return to the previous screen

Press [RETURN].

Entering text

RAM -R -RW(V) +R

You can give names to recorded titles, etc.

The maximum number of characters:

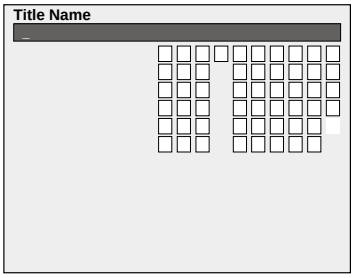
RAM	Characters	-R -RW(V) +R	Characters
Title	64 (44※)	Title	44
Playlist	64	Disc	40
Disc	64		

※ Scheduled recording

If a name is long, parts of it may not be shown in some screens.

1 Show Enter Name screen.

Title (scheduled recording)	(page 18 and 19, Step 3)
Title	(page 26, Step 3)
Playlist	(page 29, Step 5)
Disc	(page 30, “Providing a disc with a name”)



2 Press [▲, ▼, ◀, ▶] to select a character and press [ENTER].

Repeat this step to enter other characters.

- **To erase a character**
  Press [▲, ▼, ◀, ▶] to select the character in the name field and press [❚❚].
- **Using the numbered buttons to enter characters**
  e.g., entering the letter “R”
  Press [7] to move to the 7th row.
  Press [7] twice to highlight “R”.
  Press [ENTER].
- **To enter a space**
  Press [CANCEL] and press [ENTER].
- **To save frequently used phrases**
  Maximum number of saved phrases: 20
  Maximum number of characters per phrase: 20
  Press [▶▶] while the phrase to be saved is shown in the name field.
  Press [◀] to select “Save” and press [ENTER].
  - **To cancel saving phrase**
    Press [RETURN].
- **To recall a saved phrase**
  Press [◀◀].
  Press [▲, ▼, ◀, ▶] to select the phrase to be recalled and press [ENTER].
- **To erase a saved phrase**
  Press [◀◀].
  Press [▲, ▼, ◀, ▶] to select the phrase to be erased and press [SUB MENU].
  Press [ENTER].
  Press [◀] to select “Erase” and press [ENTER].
  Press [RETURN].

3 Press [■] (Set).

Returns to the previously displayed screen.

To end partway

Press [RETURN].

Text is not saved.

Summary of settings

See page 34 for details on menu operation.
The settings remain intact even if you switch the unit to standby.

Tabs	Menus	Options (Underlined items are the factory presets.)
Channel	**Signal Source (RF IN)** (➔ page 11)	● Antenna ● CableTV
	Set Channels Automatically (➔ page 11)	–
	Preset Channel Captions (➔ page 13)	–
	Manual Channel Captions (➔ page 13)	–
	VCR Plus+ Ch. Settings (➔ page 12)	–
Setup	**Off Timer** Select how long the unit remains on when it is not being used.	● 2 Hours ● 6 Hours ● Off
	Remote Control Code (➔ page 14)	● Set Code 1 ● Set Code 2 ● Set Code 3
	Clock Settings Press [ENTER] to show the following settings.	
	Set Clock Automatically (➔ page 34)	
	Set Clock Manually (➔ page 34)	
	Adjust Time Zone (➔ page 34)	● –1 ● 0 ● +1
	Quick Start A few seconds after turning on the unit, you can start recording to DVD-RAM. Power consumption in standby mode increases when Quick Start is set to "On". The unit performs self maintenance for a few minutes every morning starting at 4:00 am. The unit's buttons, including [POWER ⏻/I], do not work during this process. (Self maintenance does not start if the unit is on or if a scheduled recording covers this time.)	● On ● Off
	Restore Default Settings This returns all values in the SETUP menus, except for the clock, channel settings, ratings level, and on-screen language, to the default settings.	● Yes ● No
Disc	**Settings for Playback** Press [ENTER] to show the following settings.	
	Ratings Set a ratings level to limit DVD-Video play. Follow the on-screen instructions. Enter a 4-digit password with the numbered buttons when the password screen is shown. ● Do not forget your password.	● 8 No Limit: All DVD-Video can be played. ● 1 to 7: Prohibits play of DVD-Video with corresponding ratings recorded on them. ● 0 Lock All: Prohibits play of all DVD-Video. ● Unlock Recorder ● Change Password ● Change Level ● Temporary Unlock
	Play DVD-Audio in Video Mode Select "Video Mode (Video On)" to play DVD-Video content on some DVD-Audio.	● Video Mode (Video On): The setting returns to "Audio Mode (Video Off)" when you change the disc or turn the unit off. ● Audio Mode (Video Off)
	Audio Language DVD-V ● Some discs start in a certain language despite any changes you make here. ● Enter a code (➔ page 36) with the numbered buttons when you select "Other ✳✳✳✳". When the selected language is not available on the disc, the default language is played. There are discs where you can only switch the language from the menu screen.	● English ● French ● Spanish ● Original: The original language of each disc will be selected. ● Other ✳✳✳✳
	Subtitle Language DVD-V	● Automatic: If the language selected for "Audio Language" is not available, subtitles of that language will automatically appear if available on that disc. ● English ● French ● Spanish ● Other ✳✳✳✳
	Menu Language DVD-V	● English ● French ● Spanish ● Other ✳✳✳✳
	Settings for Recording Press [ENTER] to show the following setting.	
	Recording Time in EP Mode Select the maximum number of hours for recording in EP mode (➔ page 15, Recording modes and approximate recording times).	● EP–Extended Play (6H): You can record for 6 hours on an unused 4.7 GB disc. ● EP–Extended Play (8H): You can record for 8 hours on an unused 4.7 GB disc.
Video	**Still Mode** Select the type of picture shown when you pause play (➔ page 36, Frames and fields).	● Automatic ● Field: Select if jittering occurs when "Automatic" is selected. ● Frame: Select if small text or fine patterns cannot be seen clearly when "Automatic" is selected.

Continued on next page

Tabs	Menus	Options (Underlined items are the factory presets.)
Video Continued	**Black Level Control** Select normal, lighter or darker for adjusting the black level control to the desired setting for picture enhancement.	
	Input Level Adjusts the black level of the input signal.	• Lighter • Darker
	Output Level (Composite/SVideo) Adjusts the black level of the output signal from the VIDEO OUT and S VIDEO OUT terminal.	• Lighter • Darker
	Output Level (Component) Adjusts the black level of the output signal from the COMPONENT VIDEO OUT ($Y/P_B/P_R$) terminals.	• Lighter • Normal • Darker
Audio	**Dynamic Range Compression** DVD-V **(Dolby Digital only)** Change the dynamic range for late night viewing.	• On: • Off:
	Select MTS Select whether to record the main or secondary audio program (SAP) when recording to DVD-R, DVD-RW (DVD-Video format) or +R. (You cannot change secondary audio when recording audio to DVD-R, DVD-RW (DVD-Video format) or +R from an external source.)	• Main • Secondary Audio Program (SAP)
	Digital Audio Output Change the settings when you have connected equipment through this unit's DIGITAL AUDIO OUT terminal (➔ page 9). • Press [ENTER] to display the menu.	
	PCM Down Conversion Select how to output audio with a sampling frequency of 96 kHz or 88.2 kHz. • Signals are converted to 48 kHz or 44.1 kHz despite the above settings if the signals have a sampling frequency of over 96 kHz or 88.2 kHz, or the disc has copy protection.	• On: Signals are converted to 48 kHz or 44.1 kHz. (Choose when the connected equipment cannot process signals with a sampling frequency of 96 kHz or 88.2 kHz.) • Off: Signals are output as 96 kHz or 88.2 kHz. (Choose when the connected equipment can process signals with a sampling frequency of 96 kHz or 88.2 kHz.)
	Dolby Digital DOLBY DIGITAL Select how to output the signal, to output "Bitstream" so the connected equipment decodes the signal, or to decode on this unit and output the signal as "PCM" (2 channel).	• Bitstream: When connecting to equipment displaying the Dolby Digital logo. • PCM: When connecting to equipment not displaying the Dolby Digital logo.
	DTS DIGITAL dts SURROUND **Note** Not making the proper settings may result in noise, possibly damaging your hearing and speakers, and digital recording may not work properly.	• Bitstream: When connecting to equipment displaying the DTS logo. • PCM: When connecting to equipment not displaying the DTS logo.
Display	**Status Messages** Choose whether to show status messages automatically.	• Automatic • Off
	On-screen Language Choose the language for these menus and on-screen messages.	• English • Español • Français
	Blue Background Select "Off" if you do not want to have the unit show the blue background when reception is weak.	• On • Off
	Front Display Changes the brightness of the unit's display.	• Bright • Dim • Automatic: The display turns dark during play, and reappears momentarily if a button is pressed. When the unit is turned off all displays disappear. While using this mode the standby power consumption can be reduced.
TV Screen	**TV Type** (➔ page 14)	• Aspect 4: 3 & 480i • Aspect 4: 3 & 480p • Aspect 16: 9 & 480i • Aspect 16: 9 & 480p
	4: 3 TV Settings for DVD-Video Select how DVD-Video widescreen picture is shown on a 4: 3 standard aspect television.	• Pan and Scan (Stretch to fit): Video recorded for a widescreen is played as Pan & Scan (unless prohibited by the producer of the disc). • Letterbox (Shrink to fit): Video recorded for a widescreen is played in the letterbox style.
	4: 3 TV Settings for DVD-RAM Select how DVD-RAM widescreen picture is shown on a 4: 3 standard aspect television.	• 4: 3: Titles played as recorded. • Pan and Scan (Stretch to fit): Video recorded for a widescreen is played as Pan & Scan. • Letterbox (Shrink to fit): Video recorded for a widescreen is played in the letterbox style.

Preparation

- The settings remain intact even if you switch the unit to standby.
- Turn on the television and select the appropriate video input to suit the connections to this unit.
- Turn the unit on.

1 **While stopped**

Press [SETUP].

2 **Press [▲, ▼] to select the tab and press [▶].**

3 **Press [▲, ▼] to select the menu and press [ENTER].**

4 **Press [▲, ▼] to select the option and press [ENTER].**

Note

There may be differences in operation methods. If this happens, follow the on-screen instructions for the operation.

In the case of a power failure, the clock setting remains in memory for approximately 1 minute.

1 **While stopped**

Press [SETUP].

2 **Press [▲, ▼] to select "Setup" and press [▶].**

3 **Press [▲, ▼] to select "Clock Settings" and press [ENTER].**

4 **Press [▲, ▼] to select "Set Clock Automatically" and press [ENTER].**

5 **Press [ENTER].**

Auto setting starts. This can take some time, up to a few hours in some cases. The following screen appears when setting is complete.

- If the time was not set correctly, use manual clock setting or time zone adjust.
- DST, Daylight Saving Time, shows the summertime setting.
- Time Zone shows the time difference from Greenwich Mean Time (GMT).

EST (Eastern Standard Time) = GMT –5
CST (Central Standard Time) = GMT –6
MST (Mountain Standard Time) = GMT –7
PST (Pacific Standard Time) = GMT –8
AST (Alaska Standard Time) = GMT –9
HST (Hawaii Standard Time) = GMT –10
For other areas: xx hr

6 **Press [ENTER].**

To cancel partway

Press [RETURN].

Adjust the time zone (–1 or +1) if it was not set correctly with auto clock setting.
You cannot change this setting if you set the clock manually.

4 **Press [▲, ▼] to select "Adjust Time Zone" and press [ENTER].**

5 **Press [▲, ▼] to select "–1" or "+1" and press [ENTER].**

4 **Press [▲, ▼] to select "Set Clock Manually" and press [ENTER].**

5 **Press [◀, ▶] to select the item you want to change and press [▲, ▼] to change the setting.**

DST (Daylight Saving Time): On or Off
If you select "On", the clock is advanced one hour starting at 2 a.m. on the first Sunday in April and ending at 2 a.m. on the last Sunday in October.
Time Zone (➔ above)

6 **Press [ENTER].**

The clock starts.

When you change the time zone, the recording times for titles recorded before the time zone was changed also change to

Specifications

Recording system: DVD Video Recording format (DVD-RAM), DVD-Video format (DVD-R), DVD-Video format (DVD-RW)

Optical pick-up: System with 1 lens, 2 integration units (662 nm wavelength for DVDs, 795 nm wavelength for CDs)

Recordable discs:
DVD-RAM :
Ver. 2.0
Ver. 2.1/3x–SPEED DVD-RAM Revision 1.0
Ver. 2.2/5x–SPEED DVD-RAM Revision 2.0
DVD-R :
for General Ver. 2.0
for General Ver. 2.0/4x–SPEED DVD-R Revision 1.0
for General Ver. 2.x/8x–SPEED DVD-R Revision 3.0
DVD-RW :
Ver. 1.1
Ver. 1.1/2x–SPEED DVD-RW Revision 1.0
Ver. 1.2/4x–SPEED DVD-RW Revision 2.0
+R :
Ver. 1.0
Ver. 1.1
Ver. 1.2

Recording time:
Maximum 8 hours (with 4.7 GB disc)
XP: Approx. 60 minutes SP: Approx. 120 minutes
LP: Approx. 240 minutes EP: Approx. 360 minutes or 480 minutes

Playable discs:
DVD-RAM, DVD-R, DVD-RW, +R,
+RW, DVD-VIDEO, DVD-AUDIO, Video CD, CD-Audio (CD-DA),
CD-R/CD-RW (MP3, JPEG, CD-DA, Video CD formatted discs)

Video system
TV system: NTSC color signal, 525 lines, 60 fields
Recording system: MPEG2 (Hybrid VBR)
Input: LINE (pin jack) ×3, 1.0 Vp-p; 75

Bitstream
This is the digital form of multi-channel audio data (e.g., 5.1 channel) before it is decoded into its various channels.

CPRM (Content Protection for Recordable Media)
CPRM is technology used to protect broadcasts that are allowed to be recorded only once. Such broadcasts can be recorded only with CPRM compatible recorders and discs.

Dolby Digital
This is a method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2-channel) audio, these signals can also be multi-channel audio. A large amount of audio information can be recorded on one disc using this method.

Down-mixing
This is the process of remixing the multi-channel audio found on some discs into two channels for stereo output. It is useful when you want to listen to the 5.1-channel audio recorded on DVDs through your television's speakers. Some discs prohibit down-mixing and this unit can then only output the front two channels.

DTS (Digital Theater Systems)
This surround system is used in many movie theaters. There is good separation between the channels, so realistic sound effects are possible.

Dynamic range
Dynamic range is the difference between the lowest level of sound that can be heard above the noise of the equipment and the highest level of sound before distortion occurs. Dynamic range compression means reducing the gap between the loudest and softest sounds. This means you can listen at low volumes but still hear dialog clearly.

Film and video
DVD-Video are recorded using either film or video. This unit can determine which type has been used, then uses the most suitable method of progressive output.
- Film is 24 or 30 frames per second, with motion picture film generally being 24 frames per second.
- Video is 60 fields per second (two fields making up one frame).

Finalize
A process that makes play of a recorded CD-R, CD-RW, DVD-R, etc. possible on equipment that can play such media. You can finalize DVD-R, DVD-RW (DVD-Video format) or +R on this unit.
After finalizing, the disc becomes play-only and you can no longer record or edit. You can record after formatting although it becomes play-only after finalizing, when you use DVD-RW.

Formatting
Formatting is the process of making media such as DVD-RAM recordable on recording equipment.
You can format DVD-RAM or DVD-RW (only as DVD-Video format) on this unit.
Formatting irrevocably erases all contents.

Frames and fields
Frames refer to the single images that constitute the video you see on your television. Each frame consists of two fields.

Frame Field Field

- A frame still shows two fields, so there may be some blurring, but picture quality is generally better.
- A field still shows less picture information so it may be rougher, but there is no blurring.

JPEG (Joint Photographic Experts Group)
This is a system used for compressing/decoding color still pictures. If you select JPEG as the storage system on digital cameras, etc., the data will be compressed to 1/10–1/100 of its original size. The feature of JPEG is less deterioration in picture quality considering the degree of compression.

MP3 (MPEG Audio Layer 3)
An audio compression method that compresses audio to approximately one tenth of its size without any considerable loss of audio quality. You can play MP3 you have recorded onto CD-R and CD-RW.

Pan & Scan/Letterbox
In general, DVD-Video are produced with the intention that they be viewed on a widescreen television (16:9 aspect ratio), so images often don't fit regular (4:3 aspect ratio) televisions. Two styles of picture, "Pan & Scan" and "Letterbox", deal with this problem.

Pan & Scan: The sides are cut off so the picture fills the screen.

Letterbox: Black bands appear at the top and bottom of the picture so the picture itself appears in an aspect ratio of 16:9.

Playback control (PBC)
If a Video CD has playback control, you can select scenes and information with menus.
(This unit is compatible with version 2.0 and 1.1.)

Progressive/Interlace
NTSC, the video signal standard, has 480 interlaced (i) scan lines, whereas progressive scanning uses twice the number of scan lines. This is called 480p.
Using progressive output, you can enjoy the high-resolution video recorded on media such as DVD-Video. Your television must be compatible to enjoy progressive video.

Protection
You can prevent accidental erasure by setting writing protection or erasure protection.

Sampling frequency
Sampling is the process of converting the heights of sound wave (analog signal) samples taken at set periods into digits (digital encoding). Sampling frequency is the number of samples taken per second, so larger numbers mean more faithful reproduction of the original sound.

Thumbnail
This refers to a miniature representation of a picture used to display multiple pictures in the form of a list.

TIFF (Tag Image File Format)
This is a system used for compressing/decoding color still pictures. A common format for storing high quality images on digital cameras and other devices.

Language code list

Enter the code with the numbered buttons.

Abkhazian:	6566	Catalan:	6765	Gujarati:	7185	Lingala:	7678	Rhaeto-Romance:		Tamil:	8465
Afar:	6565	Chinese:	9072	Hausa:	7265	Lithuanian:	7684		8277	Tatar:	8484
Afrikaans:	6570	Corsican:	6779	Hebrew:	7387	Macedonian:	7775	Romanian:	8279	Telugu:	8469
Albanian:	8381	Croatian:	7282	Hindi:	7273	Malagasy:	7771	Russian:	8285	Thai:	8472
Ameharic:	6577	Czech:	6783	Hungarian:	7285	Malay:	7783	Samoan:	8377	Tibetan:	6679
Arabic:	6582	Danish:	6865	Icelandic:	7383	Malayalam:	7776	Sanskrit:	8365	Tigrinya:	8473
Armenian:	7289	Dutch:	7876	Indonesian:	7378	Maltese:	7784	Scots Gaelic:	7168	Tonga:	8479
Assamese:	6583	English:	6978	Interlingua:	7365	Maori:	7773	Serbian:	8382	Turkish:	8482
Aymara:	6589	Esperanto:	6979	Irish:	7165	Marathi:	7782	Serbo-Croatian:	8372	Turkmen:	8475
Azerbaijani:	6590	Estonian:	6984	Italian:	7384	Moldavian:	7779	Shona:	8378	Twi:	8487
Bashkir:	6665	Faroese:	7079	Japanese:	7465	Mongolian:	7778	Sindhi:	8368	Ukrainian:	8575
Basque:	6985	Fiji:	7074	Javanese:	7487	Nauru:	7865	Singhalese:	8373	Urdu:	8582
Bengali; Bangla:		Finnish:	7073	Kannada:	7578	Nepali:	7869	Slovak:	8375	Uzbek:	8590
	6678	French:	7082	Kashmiri:	7583	Norwegian:	7879	Slovenian:	8376	Vietnamese:	8673
Bhutani:	6890	Frisian:	7089	Kazakh:	7575	Oriya:	7982	Somali:	8379	Volapük:	8679
Bihari:	6672	Galician:	7176	Kirghiz:	7589	Pashto, Pushto:	8083	Spanish:	6983	Welsh:	6789
Breton:	6682	Georgian:	7565	Korean:	7579	Persian:	7065	Sundanese:	8385	Wolof:	8779
Bulgarian:	6671	German:	6869	Kurdish:	7585	Polish:	8076	Swahili:	8387	Xhosa:	8872
Burmese:	7789	Greek:	6976	Laotian:	7679	Portuguese:	8084	Swedish:	8386	Yiddish:	7473
Byelorussian:	6669	Greenlandic:	7576	Latin:	7665	Punjabi:	8065	Tagalog:	8476	Yoruba:	8979
Cambodian:	7577	Guarani:	7178	Latvian, Lettish:	7686	Quechua:	8185	Tajik:	8471	Zulu:	9085

Frequently asked questions

Set up		Page
What equipment is necessary to play multi channel surround sound?	• DVD-Video: You can play DVD-Video multi channel surround by digitally connecting an amplifier equipped with a Dolby Digital and a DTS decoder. • DVD-Audio: This unit plays DVD-Audio in 2 channels. You cannot play multi channel surround sound.	**9** **—**
Are the headphones and speakers directly connected to the unit?	• You cannot directly connect to the unit. Connect through the amplifier, etc.	**9**
The television has both S VIDEO IN terminal and COMPONENT VIDEO IN terminals. Which terminal should I connect with?	• We recommend the COMPONENT VIDEO IN terminal. Component signal outputs the color difference signals (P_B/P_R) and luminance signal (Y) separately in order to achieve high fidelity in reproducing colors. If the television is compatible with progressive output, a high quality picture can be output because this unit's component video output terminal outputs a progressive output signal.	**7, 8**
Is my television progressive output compatible?	• All Panasonic televisions that have 480p input terminals are compatible. Consult the manufacturer if you have another brand of television.	**—**

Disc		
Can I play DVD-Video, DVD-Audio and Video CDs bought in another country?	• You can play them if the video standard is NTSC. • However, you cannot play DVD-Video if their region number does not include "1" or "ALL".	**—** **Cover**
Can a DVD-Video that does not have a region number be played?	• The DVD-Video region number indicates the disc conforms to a standard. You cannot play discs that do not have a region number.	**—**
Please tell me about DVD-R, DVD-RW, +R and +RW compatibility with this unit.	• This unit records and plays DVD-R, DVD-RW (DVD-Video format) and +R, and plays DVD-RW (DVD Video Recording format) and +RW. • This unit also records and plays high speed recording compatible DVD-R, DVD-RW, +R discs.	**4, 5** **—**
Please tell me about CD-R and CD-RW compatibility with this unit.	• This unit plays CD-R/CD-RW discs (audio recording discs) which have been recorded under one of the following standards: CD-DA, Video CD, MP3 and still pictures (JPEG/TIFF). Close the session or finalize the disc after recording. This unit can recognize up to 99 folders (groups) and 999 files (tracks) on a disc with MP3 or still pictures (JPEG/TIFF). • You cannot write to a CD-R or CD-RW with this unit.	**4, 5, 22** **—**

Recording		
Can I record from a commercially purchased video cassette or DVD?	• Most commercially sold video cassettes and DVD are copy protected; therefore, recording is usually not possible.	**—**
Can DVD-R, DVD-RW (DVD-Video format) and +R recorded on this unit be played on other equipment?	• You can play on compatible equipment such as DVD players after finalizing the disc on this unit. However, depending on the condition of the recording, the quality of the disc and capabilities of the DVD player, play may not be possible.	**31**
Can I record digital audio signals using this unit?	• You cannot record digital signals. The digital audio terminals on this unit are for output only.	**—**
Can a digital audio signal from this unit be recorded to other equipment?	• You can record if using the PCM signal. When recording DVD, change the "Digital Audio Output" settings to the following from the SETUP menu. – PCM Down Conversion On – Dolby Digital PCM – DTS PCM However, only – As long as digital recording from the disc is permitted. – As long as the recording equipment is compatible with a sampling frequency of 48 kHz. • You cannot record MP3 signals.	**33** **—**
Can I switch to SAP during recording?	• With DVD-RAM, you can, and the recorded audio also changes. Just press [AUDIO]. • With DVD-R, DVD-RW (DVD-Video format) or +R you cannot. Change before recording with "Select MTS" in the SETUP menu.	**16** **33**

Error messages

On the television

		Page
Cannot finish recording completely.	● The program was copy-protected. ● The disc may be full. ● There are already 99 recorded titles (**+R** 49 recorded titles).	— — —
Cannot play.	● You inserted an incompatible disc (Discs recorded in PAL video, etc.).	—
Cannot record on the disc. **Unable to format.** **Please check the disc.**	● The disc may be dirty or scratched.	**5**
Cannot record. Disc is full. **Cannot record. The number of titles has exceeded the maximum limit.**	● Create space by erasing any unnecessary titles. **RAM** **-RW(V)** [Even if you erase recorded content from a DVD-R or +R, there is no increase in disc space. Available disc space on DVD-RW (DVD-Video format) increases only when the last recorded title is erased.] ● Use a new disc.	**21, 27, 30** —
Error has occurred. Please press [ENTER].	● Press [ENTER] to start recovery process. You cannot operate the unit while it is recovering ("SELF CHECK" appears on the unit's display).	—
No disc	● The disc may be upside down.	—
Please change the disc.	● There may be a problem with the disc. Press [▲ OPEN/CLOSE] to remove it and check it for scratches or dirt. (The unit turns off automatically after you open the tray.)	**5**
This is a non-recordable disc. **This disc is not formatted properly.**	● The unit cannot record on the disc you inserted. Insert a DVD-RAM or unfinalized DVD-R, DVD-RW (DVD-Video format) or +R. ● You inserted an unformatted DVD-RAM or DVD-RW.	**4, 5** **30**
⊘	● The operation is prohibited by the unit or disc.	—

On the unit's display

CHK REMOTE □ ("□" stands for a number.)	● The remote control and main unit are using different codes. Change the code on the remote control. Press and hold [ENTER] and the indicated number button at the same time for more than 2 seconds.	**14**
HARD ERR	● If there is no change after turning the unit on and off, consult the dealer where the unit was purchased.	—
NO READ	● The disc is dirty or badly scratched. The unit cannot record, play, or edit. ● You have used a lens cleaner and it has finished. Press [▲ OPEN/CLOSE] to eject the disc.	**5** —
PROG FULL	● There are already 16 timer programs. Delete unnecessary timer programs.	**19**
SELF CHECK	● There was something unusual detected with the disc while recording or playing, there was a power failure or the AC plug was disconnected while the unit was on. The unit is carrying out its recovery process. This process restores the unit to normal operation. The unit is not broken. Wait until the message disappears.	**39**
UNSUPPORT	● You have inserted a disc the unit cannot play or record on.	**4, 5**
UNFORMAT	● You have inserted a DVD-RAM or DVD-RW that is unformatted or recorded on other equipment.	**30**
U59	● The unit is hot. The unit switches to standby for safety reasons. Wait about 30 minutes until the message disappears. Select a position with good ventilation when installing the unit. Do not block the vent on the rear of the unit.	—
U99	● The unit fails to operate properly. Press [POWER ⏻/I] on the main unit to switch the unit to standby. Now press [POWER ⏻/I] on the main unit again to turn the unit on.	—

Troubleshooting guide

Before requesting service, make the following checks. If you are in doubt about some of the check points, or if the remedies indicated in the chart do not solve the problem, refer to the "Customer Services Directory" on page 42 if you reside in the U.S.A., or refer to the "Product information" on page 41 if you reside in Canada.

The following do not indicate a problem with this unit:

- Regular disc rotating sounds. The sound of the disc rotating may become louder especially when finalizing a DVD-R, DVD-RW (DVD-Video format) or +R.
- Poor reception due to atmospheric conditions.
- Image disturbance during search.
- Interruptions in reception due to periodic satellite broadcasting breaks.
- Operations do not work due to a poor-quality disc. (Try again using a Panasonic disc.)
- The unit freezes due to one of its safety devices being activated. (Press and hold [POWER ⏻/I] on the main unit for 10 seconds.)

Power

		Page
No power.	• Insert the AC power supply cord securely into a known active AC outlet. • If you have turned on Quick Start in the SETUP MENU, the unit performs self maintenance for a few minutes every morning starting at 4:00 am. The unit's buttons, including [POWER ⏻/I], do not work during this process. (Self maintenance does not start if the unit is on or if a scheduled recording covers this time.)	**7, 8** **32**
The unit switches to the standby mode.	• This is a power saving feature. Change "Off Timer" in the SETUP menu, if you would prefer. • One of the unit's safety devices is activated. Press [POWER ⏻/I] on the main unit to turn the unit on.	**32** **—**

Displays

The display is dim.	• Change "Front Display" in the SETUP menu.	**33**
"12: 00A" is flashing on the unit's display.	• Set the clock.	**34**
Compared to the actual recorded time, the remaining time displayed is less.	• The displayed recording/play time is converted from the number of frames at 29.97 frames (equal to 0.999 seconds) to one second. There will be slight a difference between the time displayed and the actual elapsed time (e.g., actual one-hour elapsed time may display as approximately 59 minutes 56 seconds). This does not affect the recording.	**—**
The time recorded on the disc and the available time shown do not add up. **The play time shown for MP3 does not agree with the actual time.**	• Times shown may disagree with actual times. • Even if you erase recorded content from the DVD-R or the +R, there is no increase in disc space. • Available recording space on a DVD-RW (DVD-Video format) increases only when the last recorded title is erased. It does not increase if other titles are erased. • More disc space than the actual recording time is used after recording or editing the DVD-R or the +R 200 times or more. • While searching, the elapsed time may not display correctly.	**—** **—** **—** **—** **—**
"SELF CHECK" is displayed and the disc cannot be ejected.	• The unit is carrying out the recovery process. Do the following to eject the disc. 1 Press [POWER ⏻/I] on the main unit to switch the unit to standby. If the unit doesn't switch to standby, press and hold [POWER ⏻/I] on the main unit for about 10 seconds. The unit is forcibly switched to standby. 2 While the unit is off, press and hold [■] and [CH ∧] on the main unit at the same time for about 5 seconds. Remove the disc.	**—**

TV screen and video

Television reception worsens after connecting the unit.	• This can occur because the signals are being divided between the unit and other equipment. It can be solved by using a signal booster, available from audio-visual suppliers.	**—**
Status messages do not appear.	• Select "Automatic" in "Status Messages" in the SETUP menu.	**33**
The blue background does not appear.	• Select "On" in "Blue Background" in the SETUP menu.	**33**
The 4: 3 aspect ratio picture expands left and right. **Screen size is wrong.**	• Use the television to change the aspect. If your television does not have that function, set "Progressive" in the Video menu to "Off". • Check the settings for "TV Type", "4:3 TV Settings for DVD-Video" or "4:3 TV Settings for DVD-RAM" in the SETUP menu.	**25** **33**
There is a lot of after-image when playing video.	• Set "MPEG-DNR" in the Video menu to "Off".	**25**
When playing DVD-Video using progressive output, one part of the picture momentarily appears to be doubled up.	• Set "Progressive" in the Video menu to "Off". This problem is caused by the editing method or material used on DVD-Video, but should be corrected if you use interlace output.	**25**
There is no apparent change in picture quality when adjusted with the Video menu in the on-screen menus.	• The effect is less perceivable with some types of video.	**—**
The images from this unit do not appear on the television. **Picture is distorted.**	• Make sure that the television is connected to the VIDEO OUT terminal, S VIDEO OUT terminal or COMPONENT VIDEO OUT terminals on this unit. • Make sure that the television's input setting (e.g., VIDEO 1) is correct. • The television isn't compatible with progressive signals. Press and hold [■] and [▶ (PLAY/x1.3)] on the main unit at the same time for about 5 seconds. The setting will change to interlace.	**7, 8** **—** **—**

Sound

		Page
No sound **Low volume.** **Distorted sound.** **Cannot hear the desired audio type.**	• Check the connections and settings. Check the input mode on the amplifier if you have connected one. • Press [AUDIO] to select the audio. • Turn off V.S.S. in the following cases. –When using discs that do not have surround sound effects such as Karaoke discs. –When playing MTS broadcast programs. • The disc may have a restriction on the method of audio output. If “D. MIX” does not appear in the display when playing multi-channel DVD-Audio, only audio for the two front channels will be output. Refer to the disc’s jacket.	**7–9, 33** **20** **25** **—**
Cannot switch audio.	• You cannot change the audio type when a DVD-R, a DVD-RW (DVD-Video format) or a +R is in the disc tray. • You cannot change the audio type when playing a DVD-R, a DVD-RW (DVD-Video format) or a +R. (You can select “Main” or “SAP” in “Select MTS” in the SETUP menu before recording.) • You have used digital connection. Set “Dolby Digital” to “PCM” or connect using audio cables (analog connection). • There are discs where audio cannot be changed because of how the disc was created.	**—** **33** **9, 33** **—**

Operation

Cannot operate the television. **The remote control doesn't work.**	• Change manufacturer code. Some televisions cannot be operated even if you change the code. • The remote control and main unit are using different codes. Change the code on the remote control. Press and hold [ENTER] and the indicated number button at the same time for more than 2 seconds. • The batteries are depleted. Replace them with new ones. • Colored glass may obstruct the signal reception/transmission. • Don’t place the signal sensor in direct sunlight or in areas that may be subject to sunlight exposure.	**14** **14** **3** **—** **—**
The unit is on but cannot be operated.	• Some operations may be prohibited by the disc. • The unit is hot (“U59” appears on the display). Wait for “U59” to disappear. • One of the unit’s safety devices may have been activated. Reset the unit as follows: Press [POWER ⏻/I] on the main unit to switch the unit to standby. If the unit doesn’t switch to standby, press and hold [POWER ⏻/I] on the main unit for about 10 seconds. The unit is forcibly switched to standby. Alternatively, disconnect the AC power supply cord, wait one minute, then reconnect it.	**—** **—** **—**
Cannot eject disc.	• The unit may have a problem. While the unit is off, press and hold [■] and [CH ∧] on the main unit at the same time for about 5 seconds. Remove the disc and consult the dealer.	**—**
Startup is slow.	• Make sure that “Quick Start” is set to “On”. Even if “Quick Start” is set to “On”, startup is slow if the clock is not set, there was a power failure or the AC plug has just been connected. • A few dozen seconds after turning on the unit, you can play a disc or start recording to discs other than DVD-RAM.	**32** **—**

Recording/Scheduled recording

Cannot record.	• You haven’t inserted a disc or the disc you inserted cannot be recorded on. Insert a disc the unit can record onto. • The disc is unformatted. Format the disc. RAM -RW(V) • The write-protect tab on the cartridge is set to PROTECT, or the disc is protected with DISC MANAGEMENT. • Some programs have limitations on the number of times they can be recorded. (CPRM) • The disc is full or nearly full. Erase unneeded titles or use another disc. • You cannot record on finalized DVD-R, DVD-RW (DVD-Video format), +R or DVD-RW (DVD Video Recording format) discs. • Due to peculiarities of DVD-R, DVD-RW (DVD-Video format) or +R, you may be unable to record onto them if you either insert and remove the disc or switch the unit on and off while a disc is loaded, a total of fifty times. • A DVD-R recorded on this unit may not be recordable on other Panasonic DVD recorders.	**4, 5** **30** **30** **36** **21, 27, 30** **—** **—** **—**
Scheduled recording does not work properly. **VCR Plus+ system does not work properly.**	• When connecting a cable TV box or satellite receiver, the VCR Plus+ system does not work. • The scheduled program is incorrect or different scheduled program times overlap. Correct the program. • The unit is not on scheduled recording standby. (“◴” on the unit’s display is not on.) Press [⏻ DVD POWER] to turn the unit off and make sure that “◴” is on. • Correct the guide channels. • Set the clock.	**—** **19** **18, 19** **12** **34**
Scheduled recording does not stop even when [■] is pressed.	• Press [■] and then [ENTER] within 5 seconds to turn “◴” off. Recording stops. • If you start recording immediately after turning on the unit while “Quick Start” is set to “On”, you cannot then stop recording for a few seconds.	**18, 19** **32**
The scheduled program remains even after recording finishes.	• The scheduled program remains if set to daily or weekly.	**19**
A part or whole of a recorded title has been lost.	• If there is a power failure or the plug is disconnected from the household AC outlet while recording or editing, the title may be lost or the disc may become unusable. You will have to format the disc (RAM -RW(V)) or use a new disc. We cannot offer any guarantee regarding lost titles or discs.	**—**

Play

		Page
Play fails to start even when [▶] (PLAY) is pressed. **Play starts but then stops immediately.**	●Insert the disc correctly with the label facing up. ●You tried to play a blank DVD-RAM, DVD-R, DVD-RW (DVD-Video format), +R, DVD-RW (DVD Video Recording format) or disc unplayable on this unit. ●When recording to DVD-RAM using EP (8H) mode, play may not be possible on DVD players that are compatible with DVD-RAM. In this case use EP (6H) mode.	**20** **4, 5** **32**
DVD-Video is not played.	● Some DVD-Video cannot be played when you change the ratings level.	**32**
Alternative soundtrack and subtitles cannot be selected.	● The languages are not recorded on the disc. ● You may have to use the disc's menus to select languages.	**—** **20**
No subtitles.	● When progressive output is on, closed captions cannot be displayed. ● Subtitles are not recorded on the disc. ● Turn the subtitles on.	**—** **—** **24**
Angle cannot be changed.	● Angles can only be changed during scenes where different angles are recorded.	**—**
You have forgotten your ratings password.	● While the disc tray is open, press and hold [● REC] and [▶ (PLAY/x1.3)] on the main unit at the same time for 5 or more seconds.	**—**
Quick View does not work.	● This does not work when audio is other than Dolby Digital. ● This does not work when recording is in XP or FR mode.	**—** **—**
The resume play function does not work.	● This function only works when "PLAY" is flashing in the unit display. ● Memorized positions are canceled when the unit is turned off or when the tray is opened. The memorized position on the playlist is also canceled when the playlist and title are edited.	**—** **—**

Edit

Cannot format.	● The disc is dirty. Wipe with a damp cloth and then wipe dry. ● You tried formatting a disc that is not compatible with this unit.	**5** **4, 5**
Cannot create chapters.	● The unit writes the chapter division information to the disc when you turn it off or remove the disc. The information is not written if there is an interruption to the power before this.	**—**
Cannot mark the start point or the end point during "Shorten" operation.	● These operations are not possible with still pictures. ● You cannot set points if they are too close to each other. You cannot set an end point before a start point.	**—** **—**
Cannot erase chapters.	● When the chapter is too short to erase, use "Combine Chapters" to make the chapter longer.	**27**
The available recording space doesn't increase even after erasing recordings on the disc.	● Available recording space on the DVD-R or the +R does not increase even after erasing previously recorded titles. ● Available recording space on a DVD-RW (DVD-Video format) increases only when the last recorded title is erased. It does not increase if other titles are erased.	**—** **—**
Cannot create a playlist.	● You cannot select all the chapters at once in a title if the title also includes still pictures. Select them individually.	**—**

Product Service

1. **Damage requiring service**—The unit should be serviced by qualified service personnel if:
   (a) The AC power supply cord or AC adaptor has been damaged; or
   (b) Objects or liquids have gotten into the unit; or
   (c) The unit has been exposed to rain; or
   (d) The unit does not operate normally or exhibits a marked change in performance; or
   (e) The unit has been dropped or the cabinet damaged.
2. **Servicing**—Do not attempt to service the unit beyond that described in these operating instructions. Refer all other servicing to authorized servicing personnel.
3 **Replacement parts**—When parts need replacing ensure the servicer uses parts specified by the manufacturer or parts that have the same characteristics as the original parts. Unauthorized substitutes may result in fire, electric shock, or other hazards.
4. **Safety check**—After repairs or service, ask the servicer to perform safety checks to confirm that the unit is in proper working condition.

Product information

For product information or assistance with product operation:

In the U.S.A., refer to "Customer Services Directory" on page 42.
In Canada, contact the Panasonic Canada Inc. Customer Care Centre at 1-800-561-5505, or visit the website (www.panasonic.ca), or an authorized Servicentre closest to you.

The model number and serial number of this product can be found on either the back or the bottom of the unit.
Please note them in the space provided below and keep for future reference.

MODEL NUMBER DMR-ES10
SERIAL NUMBER

User memo:

DATE OF PURCHASE
DEALER NAME
DEALER ADDRESS
TELEPHONE NUMBER

Limited Warranty (ONLY FOR U.S.A.)

Panasonic Consumer Electronics Company,
Division of Panasonic Corporation of North America
One Panasonic Way Secaucus, New Jersey 07094

Panasonic Puerto Rico, Inc.
Ave. 65 de Infantería, Km. 9.5
San Gabriel Industrial Park, Carolina, Puerto Rico 00985

Panasonic DVD Recorder Limited Warranty

Limited Warranty Coverage

If your product does not work properly because of a defect in materials or workmanship, Panasonic Consumer Electronics Company or Panasonic Puerto Rico, Inc. (collectively referred to as "the warrantor") will, for the length of the period indicated on the chart below, which starts with the date of original purchase ("warranty period"), at its option either (a) repair your product with new or refurbished parts, or (b) replace it with a new or a refurbished product. The decision to repair or replace will be made by the warrantor.

Product of Part name	Parts	Labor
DVD Recorder	One (1) Year	One (1) Year
Rechageable Batteries, DVD-RAM Disc (in exchange for defective item)	Ten (10) Days	Not Applicable

During the "Labor" warranty period there will be no charge for labor. During the "Parts" warranty period, there will be no charge for parts. You must carry-in or mail-in your product during the warranty period. If non-rechargeable batteries are included, they are not warranted. This warranty only applies to products purchased and serviced in the United States or Puerto Rico. This warranty is extended only to the original purchaser of a new product which was not sold "as is". A purchase receipt or other proof of the original purchase date is required for warranty service.

Carry-In or Mail-In Service

For Carry-In or Mail-In Service in the United States call 1-800-211-PANA (7262) or visit Panasonic Web Site: http://www.panasonic.com

For assistance in Puerto Rico call Panasonic Puerto Rico, Inc. (787)-750-4300 or fax (787)-768-2910.

Limited Warranty Limits And Exclusions

This warranty ONLY COVERS failures due to defects in materials or workmanship, and DOES NOT COVER normal wear and tear or cosmetic damage. The warranty ALSO DOES NOT COVER damages which occurred in shipment, or failures which are caused by products not supplied by the warrantor, or failures which result from accidents, misuse, abuse, neglect, mishandling, misapplication, alteration, faulty installation, set-up adjustments, misadjustment of consumer controls, improper maintenance, power line surge, lightning damage, modification, or commercial use (such as in a hotel, office, restaurant, or other business), rental use of the product, service by anyone other than a Factory Servicenter or other Authorized Servicer, or damage that is attributable to acts of God.

THERE ARE NO EXPRESS WARRANTIES EXCEPT AS LISTED UNDER "LIMITED WARRANTY COVERAGE". THE WARRANTOR IS NOT LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM THE USE OF THIS PRODUCT, OR ARISING OUT OF ANY BREACH OF THIS WARRANTY. (As examples, this excludes damages for lost time, travel to and from the servicer, loss of media or images, data or other recorded content. The items listed are not exclusive, but are for illustration only.) **ALL EXPRESS AND IMPLIED WARRANTIES, INCLUDING THE WARRANTY OF MERCHANTABILITY, ARE LIMITED TO THE PERIOD OF THE LIMITED WARRANTY.**

Some states do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the exclusions may not apply to you.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state. If a problem with this product develops during or after the warranty period, you may contact your dealer or Servicenter. If the problem is not handled to your satisfaction, then write to the warrantor's Consumer Affairs Department at the addresses listed for the warrantor.

PARTS AND SERVICE WHICH ARE NOT COVERED BY THIS LIMITED WARRANTY ARE YOUR RESPONSIBILITY.

Customer Services Directory

Obtain Product Information and Operating Assistance; locate your nearest Dealer or Servicenter; purchase Parts and Accessories; or make Customer Service and Literature requests by visiting our Web Site at:
http://www.panasonic.com/consumersupport
or, contact us via the web at:
http://www.panasonic.com/contactinfo
You may also contact us directly at:
1-800-211-PANA (7262),
Monday-Friday 9 am-9 pm; Saturday-Sunday 10 am-7 pm, EST.

For hearing or speech impaired TTY users, TTY: 1-877-833-8855

Accessory Purchases

Purchase Parts, Accessories and Instruction Books online for all Panasonic Products by visiting our Web Site at:
http://www.pasc.panasonic.com
or, send your request by E-mail to:
npcparts@us.panasonic.com
You may also contact us directly at:
1-800-332-5368 (Phone) 1-800-237-9080 (Fax Only) (Monday – Friday 9 am to 8 pm, EST.)
Panasonic Services Company
20421 84th Avenue South, Kent, WA 98032
(We Accept Visa, MasterCard, Discover Card, American Express, and Personal Checks)

For hearing or speech impaired TTY users, TTY: 1-866-605-1277

Service in Puerto Rico

Panasonic Puerto Rico, Inc.
Ave. 65 de Infantería, Km. 9.5, San Gabriel Industrial Park, Carolina, Puerto Rico 00985
Phone (787)750-4300, Fax (787)768-2910

Limited Warranty (ONLY FOR CANADA)

Panasonic Canada Inc.
5770 Ambler Drive, Mississauga, Ontario L4W 2T3

PANASONIC/TECHNICS PRODUCT—LIMITED WARRANTY

Panasonic Canada Inc. warrants this product to be free from defects in material and workmanship and agrees to remedy any such defect for a period as stated below from the date of original purchase.

Panasonic DVD Recorder One (1) year, parts and labour

LIMITATIONS AND EXCLUSIONS
This warranty does not apply to products purchased outside Canada or to any product which has been improperly installed, subjected to usage for which the product was not designed, misused or abused, damaged during shipping, or which has been altered or repaired in any way that affects the reliability or detracts from the performance, nor does it cover any product which is used commercially. Dry cell batteries are also excluded from coverage under this warranty.
This warranty is extended to the original end user purchaser only. A purchase receipt or other proof of date of original purchase is required before warranty service is performed.
THIS EXPRESS, LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.
IN NO EVENT WILL PANASONIC CANADA INC. BE LIABLE FOR ANY SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES.
In certain instances, some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages, or the exclusion of implied warranties, so the above limitations and exclusions may not be applicable.

WARRANTY SERVICE
For product operation and information assistance, please contact your Dealer or our Customer Care Centre at: Telephone #: (905) 624-5505 Fax #: (905) 238-2360 Web: www.panasonic.ca

For product repairs, please contact one of the following:

- Your Dealer who will inform you of an authorized Servicentre nearest you.
- Our Customer Care Centre at (905) 624-5505 or www.panasonic.ca
- A Panasonic Factory Servicentre listed below:

Richmond, British Columbia
Panasonic Canada Inc.
12111 Riverside Way
Richmond, BC
V6W 1K8
Tel: (604) 278-4211
Fax: (604) 278-5627

Calgary, Alberta
Panasonic Canada Inc.
6835-8th St. N. E.
Calgary, AB
T2E 7H7
Tel: (403) 295-3955
Fax: (403) 274-5493

Mississauga, Ontario
Panasonic Canada Inc.
5770 Ambler Dr.
Mississauga, ON
L4W 2T3
Tel: (905) 624-8447
Fax: (905) 238-2418

Lachine, Québec
Panasonic Canada Inc.
3075, rue Louis A. Amos
Lachine, QC
H8T 1C4
Tel: (514) 633-8684
Fax: (514) 633-8020

IF YOU SHIP THE PRODUCT TO A SERVICENTRE
Carefully pack and send prepaid, adequately insured and preferably in the original carton.
Include details of the defect claimed, and proof of date of original purchase.

Instalación básica

- Las conexiones del equipo descritas son ejemplos.
- Antes de hacer la conexión, apague todos los equipos y lea los manuales de instrucciones apropiados.
- El equipo periférico y los cables opcionales se venden por separado a menos que se indique lo contrario.

Conexión con un televisor y videograbadora

La conexión permitirá utilizar la videograbadora para reproducir cuando esté apagada esta unidad. Para que la operación sea óptima, se recomienda que esta unidad sea conectada como se muestra más abajo.

Ajuste de canales guía VCR Plus+

hora
manua

1 Pu

2 Pulse [▲, ▼] pa
“Español” y pulse

3 Pulse [ENTER] para i
sintonización automática
La unidad prosigue luego con Ajuste automátic
se visualiza al terminar.

4 Pulse [ENTER].

■ Si el reloj va una hora retrasado o adelantado con relación a la hora actual

1 Pulse [SETUP] para mostrar el menú SETUP.
2 Ponga “–1” o “+1” en “Ajustar del huso horario” en la ficha “Configuración” utilizando [▲, ▼, ◄, ►] y [ENTER].
3 Pulse [SETUP] para salir.

■ Si la unidad no puede ajustar el reloj automáticamente

Ponga manualmente la hora en la pantalla “Ajustar manualmente el reloj”.

Selección del tipo de televisor

].

para seleccionar “Tipo TV” y pulse [ENTER].

- Aspecto 4:3/Aspecto 16:9:

4:3	Televisor de aspecto estándar 4:3	16:9	Televisor panorámico 16:9

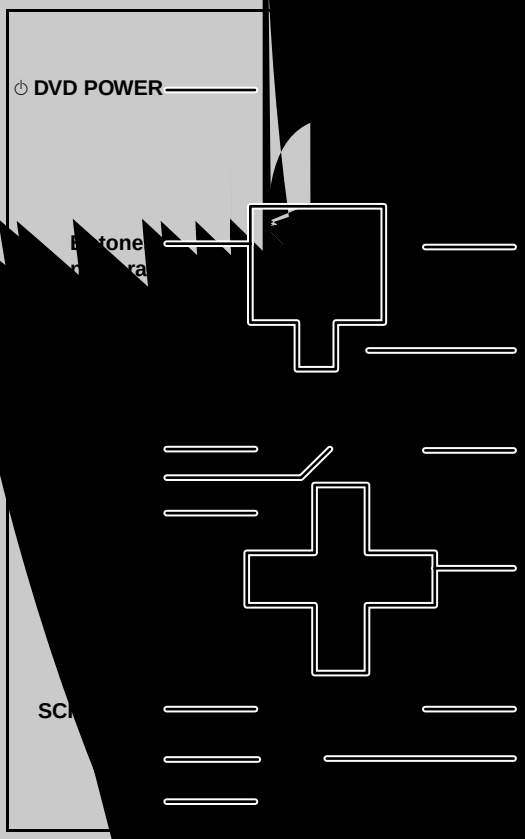
- 480p/480i: Seleccione “480p” si el televisor es compatible con salida progresiva.

4 Pulse [▲, ▼] para seleccionar el elemento y pulse [ENTER].

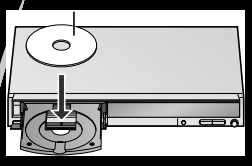
Para salir de la pantalla
Pulse [SETUP].

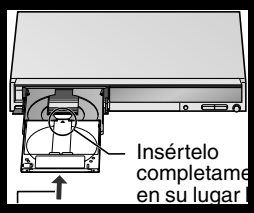
Para volver a la pantalla anterior
Pulse [RETURN].

Español



RAM -R -RW(V) +R

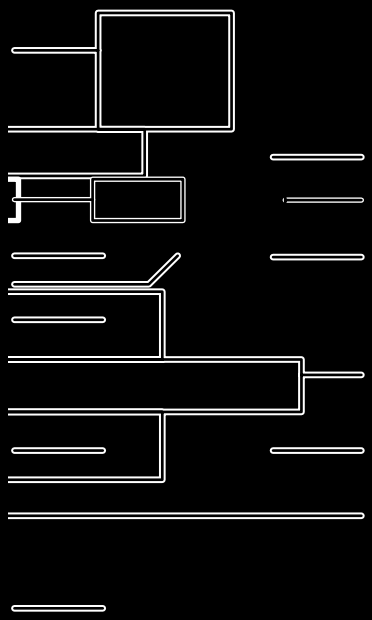




Reproducción mientras usted está grabando

RAM

Reproducción con presecución
Grabación y reproducción simultáneas
Time Slip



RAM -R -RW(V) +R -RW(VR)

DVD-V DVD-A VCD CD

RAM -R -RW(V) +R

DVD-A DVD-V

VCD

DVD-V
DVD-A
VCD

Operaciones durante la reproducción

Parada	
Pausa	
Búsqueda	
Salto	
Inicio desde un elemento seleccionado	CD DVD-A
Visiónrápida RAM	
Cámara lenta RAM -R -RW(V) +R DVD-V DVD-A (Parte de imagen en movimiento solamente) -RW(VR) VCD	VCD
Cuadro a cuadro RAM -R -RW(V) +R DVD-V DVD-A (Parte de imagen en movimiento solamente) -RW(VR) VCD	VCD
Visualización de la imagen de televisión en el modo de imagen en imagen	
Salto del tiempo especificado (Time Slip) RAM -R -RW(V) +R -RW(VR)	
Salto CM RAM -R -RW(V) +R -RW(VR)	

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THE FOLLOWING APPLIES ONLY IN THE U.S.A.

FCC Note:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: To assure continued compliance, follow the attached installation instructions and use only shielded interface cables when connecting to peripheral devices.
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.
This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

DANGER	- VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM. (FDA 21 CFR)
CAUTION	- VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM. (IEC60825-1)
ATTENTION	- RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.
ADVARSEL	- SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSÆTTELSE FOR STRÅLING.
VARO!	- AVATTAESSA OLET ALTTIINA NÄKYVÄÄ JA NÄKYMÄTÖN LASERSÄTEILYLLE. ÄLÄ KATSO SÄTEESEEN.
VARNING	- SYNLIG OCH OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRAKTA EJ STRÅLEN.
ADVARSEL	- SYNLIG OG USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.
VORSICHT	- SICHTBARE UND UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
注 意	- 打开时有可见及不可见激光辐射。避免激光束照射。
注 意	- ここを開くと可視及び不可視のレーザー光が出ます。ビームを直接見たり、触れたりしないでください。 RQLS0233

(Inside of product)

The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.

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Printed in Malaysia

RQT8009-5P
H1204HM5065